

B-1006

William Knabe and Co. Piano Factory, site, (Maryland Baking Company)

Architectural Survey File

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Last Updated: 03-10-2011

B-1006

William Knabe and Company Piano Factory
(Maryland Baking Company)

Baltimore

Private

Demolished - 1990

1869

Statement of Significance

With its elegant cupola and classical cornice and pediment, the William Knabe and Company factory is one of Baltimore's most stately and refined industrial structures. Yet behind this facade of the finest Baltimore Brick, piano making developed into an industry which combined sophisticated technology and precision handwork to produce instruments whose quality was acknowledged by musicians around the world. Its history is also an excellent example of the transfer of craft technology by immigrant workers from Europe and of their role in Baltimore's industrial revolution.

MARYLAND HISTORICAL TRUST

B-1006

MAGI #0410063514

INVENTORY FORM FOR STATE HISTORIC SITES SURVEY

1 NAME

HISTORIC

William Knabe and Company Piano Factory

AND/OR COMMON

Maryland Baking Company

2 LOCATION

STREET & NUMBER

1100 South Eutaw

CITY, TOWN

Baltimore

— VICINITY OF

CONGRESSIONAL DISTRICT

STATE

Maryland

COUNTY

3 CLASSIFICATION

CATEGORY

- ☐ DISTRICT
- ☐ BUILDING(S)
- ☐ STRUCTURE
- ☐ SITE
- ☐ OBJECT

OWNERSHIP

- ☐ PUBLIC
- ☐ PRIVATE
- ☐ BOTH
- ☐ PUBLIC ACQUISITION
- ☐ IN PROCESS
- ☐ BEING CONSIDERED

STATUS

- ☐ OCCUPIED
- ☐ UNOCCUPIED
- ☐ WORK IN PROGRESS
- ☐ ACCESSIBLE
- ☐ YES: RESTRICTED
- ☐ YES: UNRESTRICTED
- ☐ NO

PRESENT USE

- ☐ AGRICULTURE
- ☐ MUSEUM
- ☐ COMMERCIAL
- ☐ PARK
- ☐ EDUCATIONAL
- ☐ PRIVATE RESIDENCE
- ☐ ENTERTAINMENT
- ☐ RELIGIOUS
- ☐ GOVERNMENT
- ☐ SCIENTIFIC
- ☐ INDUSTRIAL
- ☐ TRANSPORTATION
- ☐ MILITARY
- ☐ OTHER:

4 OWNER OF PROPERTY

NAME

Sweetheart Properties, Inc. (MD Cup Corp) Telephone #: 363-1111

STREET & NUMBER

10100 Reisterstown Road

CITY, TOWN

Owings Mills

— VICINITY OF

STATE, zip code

Maryland 21117

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE,
REGISTRY OF DEEDS, ETC.

Baltimore City Courthouse

STREET & NUMBER

Calvert and Fayette Sts.

CITY, TOWN

Baltimore, Maryland 21202

STATE

Liber #: RHB 3220

Folio #: 873

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

DATE

— FEDERAL — STATE — COUNTY — LOCAL

DEPOSITORY FOR
SURVEY RECORDS

CITY, TOWN

STATE

7 DESCRIPTION

B-1006

CONDITION

☐ EXCELLENT
☒ GOOD
☐ FAIR

☐ DETERIORATED
☐ RUINS
☐ UNEXPOSED

CHECK ONE

☐ UNALTERED
☒ ALTERED

CHECK ONE

☒ ORIGINAL SITE
☐ MOVED DATE _____

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The structure built in 1869 by the Knabe Piano Company was one of the largest manufacturing plants in Baltimore at that time. Its principal facade facing east on Eutaw Street is five stories high and thirty bays wide, comprising a central pedimented portico and wings of eleven bays each. The portico contains the most decorative features of the building including semi-circular lintels on the ground floor, a cornice at the second floor level, moulded brick and decorative brickwork. The central two bays form a portico within a portico projecting another four inches from its surface. The windows in this portion are framed by prominent pendant lintels. In contrast the window treatment of the two wings is starkly simple. Lintels and sill are square white limestone flush with the facade.

The most prominent feature of the building is its strong cornice and its central cupola. These elements give the overall federal appearance to a structure whose height and mass represent a much larger scale. The cupola is octagonal and is capped by an octagonal dome above a dentiled cornice. All the framing is of heavy timber as is that of the main roof which is supported on trusses.

The interior of the building harkens back to early structural forms. The heavy masonry walls bear the floor system on a series of heavy timbers supported by two rows of intervening cast-iron

CONTINUE ON SEPARATE SHEET IF NECESSARY

(cont.)

PERIOD		AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION	
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE	
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE	
<input type="checkbox"/> 1600-1699	<input checked="" type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN	
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input checked="" type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER	
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION	
<input type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input checked="" type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)	
		<input type="checkbox"/> INVENTION			

SPECIFIC DATES

BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

With its elegant cupola and classical cornice and pediment, the William Knabe and Company factory is one of Baltimore's most stately industrial structures. Behind this facade of the finest Baltimore brick, piano making developed into an industry which combined sophisticated technology and precision handwork to produce instruments whose quality was acknowledged by musicians around the world. Its history is so an excellent example of the transfer of craft technology by immigrant workers from Europe and of their role in Baltimore's industrial revolution.

Historical Significance:

The manufacturing of pianos was an industry usually associated with the great Northern cities, however by 1865 Baltimore's contribution to the industry was well recognized. William Knabe and Company had one of the largest piano factories in the world, and its proximity to major rail and sea terminals proved useful in carrying the Knabe name all over the world. Other piano manufacturers had existed in the city as early as 1810, when Adam Stewart set up one of the first piano factories in the country on Charles Street near Baltimore Street. From that time, the industry grew steadily and by 1881 there were 16 piano manufacturing establishments in the city, employing 690 people and producing \$946,488 worth of goods.

(continued)

CONTINUE ON SEPARATE SHEET IF NECESSARY

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Vertical Files, Baltimore Industrial Museum
Information provided by the Knabe Piano Company

CONTINUE ON SEPARATE SHEET IF NECESSARY

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____

VERBAL BOUNDARY DESCRIPTION

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE

COUNTY

STATE

COUNTY

11 FORM PREPARED BY

NAME / TITLE Robert Weis, Dennis Zembala

ORGANIZATION

Baltimore Industrial Museum

DATE

November, 1980

STREET & NUMBER

217 N. Charles Street

TELEPHONE

301-396-1931

CITY OR TOWN

Baltimore, Maryland 21201

STATE

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature, to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 Supplement.

The Survey and Inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

RETURN TO: Maryland Historical Trust
The Shaw House, 21 State Circle
Annapolis, Maryland 21401
(301) 267-1438

#B 1006

Knabe Piano Company
7) Architectural Description
Page 2

columns. From the interior the windows appear recessed, much as in early mill buildings. The building is used principally for storage and nothing remains to show layout or technology of early manufacturing.

The second building remaining from the Knabe enterprise is an architecturally similar ^{five-story} structure just south of the building described above, on the south side of West Street. Now part of the larger mass occupying the entire block, this wing has an east-west axis along West Street. Its roof is supported on timber trusses and surmounted by a monitor along the ridgeline. The top floor is occupied by the ice cream cone machines of the Maryland Baking Company (a subsidiary of Maryland Cup Corporation). Its east facade is six bays wide and presents a gable end toward Eutaw Street.

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William Knabe & Company Piano Factory

8) Historical Significance

Page 2

William Knabe arrived in Baltimore from Germany in 1833, aged 30. His family background was in woodworking, and this heritage and a good education were indispensable to his piano making success. He trained with Joseph Hiskey and Henry Hartye, local piano makers of skill and prominence. In 1837 Knabe formed Knabe and Gaehle with Henry Gaehle, a piano-making partnership on Liberty Street which lasted until Gaehle's death in 1853. Changing the name to Wm. Knabe and Company, Knabe continued making square, upright, and grand pianos at new and improved facilities on West Street near South Eutaw. After Knabe's death in 1864, his sons continued the business, expanding the factory and improving the product. In 1908 the firm was purchased by the American Piano Company, owners also of Chickering and several other piano firms, which continued to use the West Street facilities. In 1929 the company moved to a new factory site in East Rochester, New York, where they continue producing pianos under the Knabe name today.

The main structure at the West and Eutaw Street complex is one of the best remaining examples of the city's 19th century factory buildings. It combines functional simplicity of structure with a restrained use of decorative elements, especially the stately cupola that sits in the center of the roof. Built in 1869, it resembles many New England textile mills of that period in size and shape. When built, it was stocked with the latest equipment, some specially designed by Knabe and Company.

As the company grew it kept pace with the latest technology -- the finest steam engines, gas and incandescent lighting, steam heating and elevators, and fire-proof doors and walls. The entire manufactory, including

(continued)

Knabe & Company Piano Factory
8) Historical Significance
Page 3

ding the adjacent lumber yards, covered more than three acres. The pianos, produced at a rate of about 40 per week in 1865 and 70 per week in 1890, had parts made entirely by the Knabe Company. They cast their own iron frames, and the extensive stocks of lumber on hand provided the proper materials for the many different wooden parts.

Other area piano manufactories merely assembled the instruments and consequently never received the accolades bestowed upon Knabe, whose pianos were endorsed by Tchaikowsky, Rubeinstein, and Puccini, to name but a few.

Since the mid-1930's, the factory has been the home of paper and paper cup companies and is now owned and used by the Maryland Cup Corporation, who owns several properties in the vicinity, as well as a large factory in Owings Mills, Maryland. The south building of the old Knabe complex is used by the Maryland Baking Company branch of Maryland Cup as a ice cream cone baking facility. Although this and the main building, with its cupola and dated (1869) keystone in the central arch, remain, the western "annex" on West and China Streets which was the original Knabe building on the site, has been demolished and is now a parking lot. Some of the former lumber yards west of the buildings are now covered by a large concrete block warehouse.

NAER INVENTORY										U.S. Department of the Interior Heritage Conservation and Recreation Service									
1. SITE I.D. NO B 1 0 0 6										4. DANGER OF DEMOLITION? (SPECIFY THREAT) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN									
2. INDUSTRIAL CLASSIFICATION MANUFACTURING										3. PRIORITY									
5. DATE										6. GOVT SOURCE OF THREAT OWNER ADMIN									
8. NAME(S) OF STRUCTURE WILLIAM KNABE AND COMPANY PIANO FACTORY (now Maryland Baking Company)										7. OWNER/ADMIN Sweetheart Properties, Inc.									
9. OWNER'S ADDRESS 10100 Reisterstown Road																			
10. STATE COUNTY M D COUNTY NAME CITY/VICINITY CONG. DIST. 3										10. STATE COUNTY M D COUNTY NAME CITY/VICINITY CONG. DIST. 3									
11. SITE ADDRESS (STREET & NO) 1100 South Eutaw										12. EXISTING SURVEYS <input type="checkbox"/> NR <input type="checkbox"/> NHL <input type="checkbox"/> HABS <input type="checkbox"/> HAER-I <input type="checkbox"/> HAER <input type="checkbox"/> NPS <input type="checkbox"/> CL6 <input type="checkbox"/> CONF <input type="checkbox"/> STATE <input type="checkbox"/> COUNTY <input type="checkbox"/> LOCAL <input type="checkbox"/> OTHER									
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17. DESCRIPTION AND BACKGROUND HISTORY, INCLUDING CONSTRUCTION DATE(S), HISTORICAL DATE(S), PHYSICAL DIMENSIONS, MATERIALS, EXTANT EQUIPMENT, AND IMPORTANT BUILDERS, ENGINEERS, ETC. See Statement of Significance										17. DESCRIPTION AND BACKGROUND HISTORY, INCLUDING CONSTRUCTION DATE(S), HISTORICAL DATE(S), PHYSICAL DIMENSIONS, MATERIALS, EXTANT EQUIPMENT, AND IMPORTANT BUILDERS, ENGINEERS, ETC. See Statement of Significance									
18. ORIGINAL USE Piano Factory										18. ORIGINAL USE Piano Factory									
19. REFERENCES—HISTORICAL REFERENCES, PERSONAL CONTACTS, AND/OR OTHER Vertical files, Baltimore Industrial Museum Information provided by Knabe Piano Company										19. REFERENCES—HISTORICAL REFERENCES, PERSONAL CONTACTS, AND/OR OTHER Vertical files, Baltimore Industrial Museum Information provided by Knabe Piano Company									
20. URBAN AREA 50,000 POP. OR MORE? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO										20. URBAN AREA 50,000 POP. OR MORE? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO									
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22. EDITOR INDEXER										22. EDITOR INDEXER									
23. LOCATED IN AN HISTORIC DISTRICT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO NAME DISTRICT I.D. NO										23. LOCATED IN AN HISTORIC DISTRICT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO NAME DISTRICT I.D. NO									

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(CONT OVER)

Significance

With its elegant cupola and classical cornice and pediment, the William Knabe and Co. factory is one of Baltimore's most stately and refined industrial structures. Yet behind this facade of the finest Baltimore brick, piano making developed into an industry which combined sophisticated technology and precision handwork to produce instruments whose quality was acknowledged by musicians around the world. Its history is also an excellent example of the transfer of craft technology by immigrant workers from Europe and of their role in Baltimore's industrial revolution.

REFERENCES (CONTINUED)

ABSTRACT		HAER NO		LC	TECH REPORT	HIST REPORT	CONTEMP PHOTO	HIST PHOTO	CONTEMP DRWG	HIST DRWG	COLOR PLATE	PHOTOGRAM	SW	FILM

B-1006

DRAFT

HISTORIC AMERICAN ENGINEERING RECORD

WILLIAM KNABE & CO. HAER NO. MD
(MARYLAND BAKING COMPANY) (MARYLAND CUP CORPORATION)
(HOLTITE MANUFACTURING COMPANY)

Location: S. Eutaw Street, between W. Cross Street
and W. Ostend Street, Baltimore, Maryland.

Date(s) of Construction: c. 1860 - c. 1968

Present Owner: Maryland Stadium Authority

Present Occupant: Vacant

Present Use: None

Significance: William Knabe & Company was one of the three leading producers of quality pianos in the United States during the late nineteenth century, when America was making the finest pianos in the world. Maryland Baking Company (and its subsidiaries) was, and is, part of a firm nationally known for its early and innovative response to the growing fast-food market of the twentieth century. Holtite Manufacturing Company was an important local firm with a national reputation. This multi-building site is the last remaining large scale complex in the Camden Industrial District. Architecturally, this complex exemplifies the evolution of factory construction techniques from the mid-nineteenth century to the mid-twentieth century.

Project Information: This documentation was undertaken in May 1989 on behalf of the Maryland Stadium Authority for the Maryland Historical Trust. The documentation was prepared by Engineering-Science, Inc., 1133 15th St., N.W., Suite 960, Washington, D.C. 20005.

I. Introduction

Several different companies have occupied this site. They were William Knabe and Company, piano manufacturers; Holtite Manufacturing Company, producers of rubber heels and other rubber products; and Maryland Baking Company, makers of ice cream cones and parent company of a number of subsidiaries. These were the Universal Machine Company, Maryland Paper Products Company, Maryland Match Company, Maryland Cup Corporation, and Sweetheart Cup Company.

Knabe and Holtite were the earliest occupants of this two-block site, initiating operations here in the 1850s and 1918, respectively. Knabe moved from its facilities in 1929 and Maryland Baking moved in shortly thereafter. Holtite was located here until 1950, at least. By the time it vacated its portion of the complex in the 1980s, Maryland Baking was occupying at least one of the former Holtite buildings.

Partially due to the overlapping and interlocking occupancies of these various companies and partly due to a lack of verifiable written information, historic names of structures were often difficult to determine. The names used here reflect the earliest determined function and/or owner.

II. Architectural Descriptions of Existing Structures

Description of Site

The William Knabe and Company, Maryland Baking Company, and Holtite Manufacturing Company site is located in the greater Camden Industrial Park, southwest of Camden Station and west of the Inner Harbor. The area contains a number of industrial complexes immediately west of the Baltimore & Ohio (B & O) Railroad rail lines which serve this industrial area in the vicinity of the harbor. The L-shaped Knabe site covers what is essentially a two block area bounded by W. Cross Street to the north, W. Ostend Street to the south, S. Eutaw Street to the east, and Warner and Russell Streets to the west. The northern block, located between W. Cross and W. West Streets to the north and south and Russell Street and S. Eutaw Street to the west and east, contains early Knabe buildings and a number of one story brick additions, some of which were built by Knabe and some of which were built by the Maryland Baking Company. The western portion of the site contains the most recent addition, a large concrete block warehouse (built ca. 1968) and a parking lot.

The southern block has W. West Street as its northern border and W. Ostend Street as its southern border. The eastern boundary is S. Eutaw Street, while the western boundary is Warner Street. This block is bisected north to south by China Street, originally known as China Alley, which is not open as a public thoroughfare today. The eastern portion of the block is occupied by Knabe, Maryland Baking Company,

and Holtite buildings. The western half of this block, from China Alley to Warner Street, was originally occupied by the Holtite Manufacturing Company and later partially by Maryland Baking Company. There are six attached buildings on this half block site.

Evolution of Site

The area once occupied by William Knabe and Company was included in the Howard's Timberneck land patent granted by the Calvert family in the seventeenth century. It was incorporated into the city of Baltimore in 1782, but city maps during the early eighteenth century show no streets, suggesting that the area was sparsely populated. In 1816 this land was still primarily agricultural, but Eutaw Street had already been extended, at an oblique angle to its northern line, probably following the boundary of an earlier property. A map of 1822 shows Sharp, Howard, Warner and Russell streets laid out parallel to Eutaw, and Montgomery, Henrietta, Hamburg, Cross, West and Stockholm running parallel with the old southwest border of the city.

The first improvement to be shown appears on a map of 1851, when the Holtz Paper Manufactory appears, east of the north-south China Alley. In 1852 the B & O Railroad began acquiring land for its Camden Station, to the north of the Holtz site. The station itself would not be completed until 1856, and then not as designed, but it immediately began to attract manufacturing concerns to the still sparsely settled area.

Documentary sources indicate that the Holtz building was converted for use as a piano manufactory by William Knabe in 1855 (this building is no longer extant). In about 1860 the west section of the first building constructed by Knabe specifically for the purpose of manufacturing pianos was completed. (This structure is identified as Room 3, of the Piano Manufacturing Building in the following description.) The second section of this building seems to have been completed in about 1865 (identified as Room 2), and the final section (Room 1), with its cupola, was finished in 1869--the date proudly displayed over the entrance. It is possible that this very large building was planned as a unit, but that its completion was delayed because of the Civil War.

The Sachse bird's-eye view of 1869 shows the completed five story Piano Manufacturing Building, with the original four story plant behind it, surrounded by piles of lumber. It also shows some of the other industries attracted by the proximity of the railroad, including the Maryland and Baltimore Glass Works, near the river, the B & O shops, other unidentified factories, and the rows of simple attached houses which some of the factory owners constructed for their workers. Much of the area was still undeveloped, however, at this date.

The G. M. Hopkins Atlas of 1876 shows the L-shaped Knabe Piano Manufacturing Building, north of W. West Street, and identifies it as a piano manufactory. It also shows the original converted paper plant to the west, with small unidentified structures occupying the northern half of the block bounded by Warner, S. Eutaw, W. West and Cross streets. A planing mill located northeast of the factory and adjacent to the railroad, may have been associated with the Knabe Company. The B & O tracks, running north-south, had been expanded and were surrounded with lumber yards. The glass works are still shown, and a distillery, coal yard, and large circular engine house for the railroad had been added. The area between W. West and Stockholm (now Ostend) streets was still vacant.

The Sanborn Insurance Map of 1890 indicates that the Knabe piano factory had again expanded, adding the Piano Mechanism Building, on the south side of W. West Street, opposite the Piano Manufacturing Building. Knabe's lumber yards covered most of the two-block area north of W. West Street, bounded on the east by the railroad tracks and on the west by China Alley, and about one-half of the block west of the alley. The northern half of the block bounded by W. West, Cross, S. Eutaw Streets and the railroad tracks, site of the planing mill in 1876, then belonged to the Eagle Furniture Works. The area to the south and west of the plant was densely developed with what are probably two to three story brick rowhouses on narrow lots. Other industries, again mostly lumber yards or other wood processing facilities, were located in the area.

An 1896 Bromley map shows that Knabe had also taken over the Blume Moulding factory and the Rittler Box Factory, a short distance to the southwest of their principal facilities, at the northwest corner of Warner and Stockholm streets. The Knabe Company had also acquired the facilities of the Eagle Furniture Manufactory, which had relocated east of the railroad tracks. By this date the general area was densely developed, with both factories and rowhouses. The factories were more diversified than they were during the earlier period, and a school and churches had been built to serve the residents of the rowhouses.

By 1901, according to the Sanborn Insurance Map, Knabe and Co. no longer owned the former moulding and box factories. There are few changes from the Bromley map of 1896.

By 1914 the railroad had expanded into the block across S. Eutaw Street from the Piano Manufacturing Building, where the Eagle Furniture factory had once been located. A major change had taken place by this time along S. Eutaw Street, south of W. West Street. A large building of similar massing, the Piano Finishing Building, was added to the Piano Mechanism Building. At the same time, a fifth floor was added to the Piano Mechanism Building. Lumber piles and smaller auxiliary buildings were located in the open areas defined by the large L-shaped group of buildings on either side of W. West Street.

Between 1914 and 1950 many transformations to the site took place. According to the 1950 Sanborn Insurance Map the site belonged to the Maryland Paper Products Corporation and many additions were made, altering the original configuration of the site. Most notably, several buildings were attached to the Piano Manufacturing Building north of W. West Street, forming an enclosed block area with a central court. The central court was similarly infilled with buildings and all were made to communicate with one another from the interiors. The original Knabe factory, west of China Alley, had been demolished, at least in part.

Another major change that occurred in this time period included the addition of the Holtite Manufacturing Company. This manufacturing complex consisted of a series of buildings erected in a row and facing Warner Street. Other buildings connected to the south end of the Piano Finishing Building south of W. West Street, were part of the Holtite Manufacturing Company. Finally, much of the open lumber yard area and the rowhouses, located between the Knabe facilities and Russell Street to the west, were razed and replaced with other industrial structures. This is the first indication of how the mixed use of the area began to decline as industry became more prominently established. Today these smaller attached structures west of China Alley have been razed too, and replaced by an extensive, one story tall, concrete block warehouse.

North Block

The north block area, north of W. West Street is entirely developed today. The large, five story tall Knabe factory has an L-shaped plan and occupies the greatest portion of the eastern and southern edge of the block. Additions to this building complete the perimeter of the eastern half of the block, creating a large, roughly quadrangular complex, with a central court area, which is now infilled. This central court has been covered with a sawtooth monitor roof, creating a one story infill building. Outside the court area and attached to the west side of the rectangular complex of structures is a large concrete block warehouse. South of the warehouse and west of the rectangular grouping of factory buildings is an open parking lot.

Individual building descriptions follow, organized, for the most part, chronologically, beginning with the Piano Manufacturing Building, the oldest remaining Knabe structure. The descriptions proceed generally clockwise from that building, roughly around the perimeter of the eastern half of the block.

Piano Manufacturing Building (1869)

The Piano Manufacturing Building is a five story, L-shaped building. Its structure is mill construction with brick veneer. The two sections of the L-shaped structure intersect at the corner of W. West Street and S. Eutaw Street, so that one side fronts S. Eutaw, and the other, W. West. The east leg of the building fronts S. Eutaw Street and is the primary elevation of the building. It has a three-part facade

ck.
veneer.
expect
load-
bearing
masonry

consisting of a slightly projecting central pavilion and two side wings equal in height to the central pavilion. Overall, there are 25 somewhat irregular bays. The central pavilion is pedimented with a front gable roof and divided into three bays by brick pilasters. The slight projection, as well as the end pilasters, help delineate the central pavilion from the northern and southern sections. The interior is composed of three open rooms, or lofts. The northern room begins at the south end of the central pavilion. There is a middle, L-shaped room, which corresponds to the juncture of the legs. The westernmost room extends the length of the western leg.

The entrance door, located at the center on the lower level, is arched with a keystone, and capped by a small, projecting brick pediment which breaks through the first floor stringcourse. The recessed door, a metal-framed, fixed light door, is of recent construction. Immediately flanking the central door are small recessed panels. On either side of this central bay are two round-arched window openings, now infilled, supported by brick piers. The upper floors are delineated by brick belt courses. On the upper stories, the two end bays of this central portion are identically articulated with a set of three one-over-one light double-hung replacement sash, while the central portion is less uniform. The second, third and fifth floors are lit by only two windows, while the fourth floor has three. Here, a central window, with a brick keystone arch, is flanked by two smaller windows with segmental arches. All second through fourth floor windows of this central bay have prominently projecting brick segmental arch window hoods, while the fifth floor windows have flat brick lintels which open directly under the wooden cornice of the pediment. All of the windows of the floors two through four on the side bays of the central pavilion have brick segmental arch lintels. The fifth floor windows, like those of the central bay, have flat brick lintels.

A triangular pediment with a brick filled tympanum surmounts the entire central pavilion. The brick tympanum is pierced by a small, round vent opening. Large modillions ornament the raking cornice of the central pediment as well as the regular cornice of the entire building. Under the modillions, a wooden entablature with two fascia runs the entire length of the S. Eutaw Street facade and wraps slightly around the north and south corners of the building.

An octagonal cupola with timber framing and metal siding surmounts the central pavilion. The cupola is raised on a corbelled base and is pierced on each of its eight sides by windows. These one over one light double hung sash are all replacements. A bellcast metal roof is topped by a scrolled ironwork finial. To the east and south of the cupola is a hooded metal ventilation mechanism.

The sides of the east wing of the Piano Manufacturing Building are virtually identical. They both consist of 11 equal, fenestrated bays. The windows all have brick lintels. Two second story windows, on the east elevation of the northern section, have been modified into loading bays with metal hinged doors, and those of the lower level have been boarded up or infilled with brick. A wood-framed gable roof monitor is located on the north half of the northern wing.

The west elevation of this northern wing of the Piano Manufacturing Building faces the courtyard area of the complex. The central pavilion on the west elevation of the building is divided into 11 bays of 11 windows spaced somewhat equally. The triangular pediment formed by the gable roof of the central pavilion is pierced with three windows. A larger central window is flanked by two smaller ones. Some of the windows of this central pavilion are early steel sash, while others are more recent replacements. The wings of the building are difficult to see from the west side, but are pierced at each level by symmetrically placed windows above the first floor, now subsumed within the mass of the Match Manufacturing Building, which is described later.

The western leg of the L-shaped factory building fronts W. West Street. It is similarly a five story tall, mill timber structure with brick walls. A wooden entablature with two fascia and modillions connects with the entablature of the northern section, at the southeast corner, and extends the length of this wing. While this portion of the building is 22 bays long in total, it actually consists of two separate sections so that the eastern portion is 10 bays long, and the western portion is 12 bays long. Wooden scroll brackets, found at the intersection of these two portions of the building as well as at the ends of the wing, decorate this fairly plain elevation. Each of the 22 bays is pierced with windows on all five levels. The westernmost section contains a gable-roofed monitor, although it is not visible from street level. The ground floor windows of this section are also either infilled or boarded. The second through fourth floors have one over one light double hung steel sash replacement windows, while the fifth floor has earlier steel sash awning windows. All of the windows have iron or steel lintels. At the fourth bay from the east, on the fourth and fifth levels, is a bridge which connects this wing to the building on the south side of W. West Street. It is a steel frame structure covered with corrugated metal sheathing.

The north elevation of this west wing, facing the courtyard area, consists of 16 bays, each one probably originally fenestrated at all five levels. However, only the upper three levels are presently visible, as an addition, referred to as the Match Manufacturing Building, adjoins the Piano Manufacturing Building on the inside elevations. Also, the sawtooth monitors obscure the second floor. Each of the windows has flat standing brick arches and stone window sills. Fire escapes are located between the second and third bays and between the third and fourth bays from the east. Chimneys are found on the inside elevations, one per interior room. On the third bay from the west at the third and fourth levels, and perhaps lower, but not visible, a wide brick chimney stands in the place of a window opening.

The narrow west elevation of this western section is unfenestrated at the upper levels. Openings occur at the first three levels, including windows, loading docks and a first-floor roll-up door. The elevator shaft, sheathed in brick on the exterior, extends above the roofline at the southwest corner.

The interior of the Piano Manufacturing Building is divided into three distinct open portions, separated by firewalls. The two end rooms are rectangular in plan (Room

2 being L-shaped). The open spaces are broken only by a central row of cast iron columns. The walls are lined with window bays flared to allow additional light. These interior loft spaces have been slightly altered since construction. Most of the changes are cosmetic in nature and occur mainly on the first two floors. On these floors, the space has been compartmentalized into office and storage rooms with movable metal, or wooden partitions. However, the three open loft spaces remain generally intact within the overall L-shaped building. The northern room (Room 1) is a large area extending, on the outside, from the southern edge of the central pavilion to the end of the north wing. The second space (Room 2), located at the intersection of the two legs of the L, includes the southern half of the north wing and the east 10 bays of the west wing. The third space (Room 3) is the 12 bay western portion of the western section.

The interiors of the upper floors differ little from each other. Room 1 has had many recent modifications on the first floor which involved conversion of the large open area into small offices. Also in this room, a central hall, marking the original main door, has been constructed. As noted on the exterior, all windows on the east side of the room have been infilled, and openings on the west side have been cut to communicate with the one story Match Manufacturing Building. Both the east and west walls are furred out from the brick exterior walls, and the north end wall, also furred, opens onto the twentieth century Printing and Machine Shop buildings which join the Piano Manufacturing Building to the north. Interior partitions are aligned along the east side of the building, creating a series of separate office spaces. Little of the original material at this level is visible as the floors are covered with carpeting, the ceiling dropped with acoustical tiles and lights added. Only the central row of cast iron columns remains. The original stairwell, foyer, freight elevator, and office area, with original beaded board siding, are located south of the newly partitioned central hall and connect with Room 2.

A brick firewall separates the original foyer from Room 2. A second stairwell, located against this firewall, east of the opening to Room 2, has been enclosed recently. The vestibule is constructed of wood partitions and connects with the exterior by a fire door, also of recent construction. All stairwells appear original, or at least to date from the nineteenth century. They consist of open risers set into a diagonal wood frame, and all are enclosed with wooden paneled doors and beaded board walls.

Room 2 has also been substantially altered. The room is reached through a metal-covered sliding fire door although the door is now encased within the wooden wall partitions. Wood partitioned rooms, which project into the interior space, have been added along the west wall of the northern leg of this room. However, in the northwest corner of this wall, the original beaded board wall covering is visible. The same wood partitioned rooms have been added along the east wall to the point of juncture between the two sections. Otherwise, the space is open with a central row of vertical piers. All piers have wooden encasements except for the northernmost I-beam pier which was presumably the same cast-iron columns as those found throughout the building. The original scrolled wooden pad between the pier and ceiling beam is extant. The beaded board ceiling is visible through gaps in the

asbestos tile, or composition board ceiling. A concrete slab floor was added in the early twentieth century.

Again, all windows have been boarded over or brick infilled although all window openings remain. The only intact windows are located along the east wall. These windows are twentieth century, steel sash factory windows. The east wall is covered in flat, wooden paneling while the south wall has two types of beaded board wainscoting.

A full bathroom was cut into the brick west wall. Because of fixtures and tile work, it appears to date from the mid-twentieth century. There are no other openings in this wall so that access to the western section of the building is not possible on the ground floor. On the north wall of this leg, a wide fire door opening has been cut with the door appearing to date from circa 1960. This opening connects to the Match Manufacturing Building.

The westernmost portion of the building is relatively unaltered. A freight elevator shaft is located in the southwest corner (doors manufactured by Security Fire Door Company, St. Louis, Missouri). Directly north of the freight elevator is a rolling overhead metal door which allows for truck loading from the parking lot. There is a single window north of this freight door. An enclosed beaded board stairwell is located in the southeast corner. The bathroom, which opens to the "L"-shaped room to the east, projects into this space under the stairwell. The interior is open, broken only by heavy timber piers, which are slightly off-center to the north. There is also a small concrete block room, which was constructed to house electrical equipment, abutting the south wall. All windows along the north elevation have been brick infilled. There is evidence of two doors, located at either end of this elevation, which have been infilled. Windows on the south wall are intact but boarded over. These are six over six light double hung wood sash windows with wooden lintels. The brick walls are pilastered. The ceiling is unsheathed, exposing the ceiling rafters. This room has no access to Room 2. All of the upper floors are connected to Room 2 by means of a six-foot doorway with sliding tin-covered fire door, operated by a counterweight pulley.

The second, third and fourth floors of the northern room, although not identical, are similar and have been less significantly altered. These three floors all consist of a large, open, rectangular space with cast iron columns running the length of the center of the room. These baseless columns have fluted shafts with entasis and stylized leaf capitals. Above the capital is the square abacus which supports a short, scrolled wooden beam or pad. This beam diffuses the weight of the horizontal timber beam which extends the length of the ceiling and serves as its main longitudinal support. An enclosed wooden beaded board stairwell leading from the ground floor to the upper level is located at the southeastern corner and connects to the vestibule stairwell on the first floor. From the stairs one turns right to enter the room, or left through the sliding tin clad fire door to enter Room 2 at the juncture.

Differences between the second, third and fourth floor interiors of the northern section consist mainly of cosmetic changes that have occurred over the years. The second level has a small, rectangular room, built of wood partitions immediately north of the stairwell, as well as another small room immediately north of the elevator. Also a metal cage forms a paravent between the east and west walls near the southern end of the room. The window treatment on the east wall also differs from floor to floor, as it has been detailed in the exterior description.

Room 2 has been more extensively, although in a large part superficially, altered. These alterations consist of the construction of offices within the open room. With the construction of these interior offices, the two legs of this L-shaped space were separated by a partition wall, which is pierced by an opening with a hinged double wooden door. Wood partitioned offices line the west wall of the northern leg as well as the entire east wall. Particle board or composition board paneling now cover the walls. The floors are covered in linoleum, and a dropped acoustic tile ceiling has been added. The segmental arched opening which separates this room from the northern section of the building is intact as is the tin-clad sliding fire door between the two rooms. The line of central vertical piers and the ceiling beam have been encased in an asbestos siding.

The western room of Room 2 has been less altered. The hardwood floors and exposed rafters with two-inch wide beams are visible. (The rafters are closely spaced with cross bracing between each member.) The central row of piers are unencased steel I-beams. The walls are covered with asbestos siding except for the brick west wall which divides Rooms 2 and 3. The metal-covered fire door (which operates on a counterweight pulley system) dividing these two sections is intact.

The second floor of the western section has been subdivided on the interior with a vestibule area created on the eastern end by a wall which runs the width of the room. A restroom was installed in the northeast corner of the vestibule portion. A wooden door set approximately in the center of the partition leads into the main portion. An office area, of recent construction, was partitioned off in the southeast corner of the main room which contains two office spaces. A wooden doorway leads from the main room into the larger of the two offices which is, in turn, connected to the smaller office. The construction of the two offices has resulted in modification of the original fabric. These alterations include the addition of carpeting and a dropped acoustical ceiling equipped with fluorescent light fixtures. An original hardwood floor is exposed in the smaller office.

The floors of the main portion of the room are covered with sheets of plywood, and the walls are exposed brick. The south wall and approximately one-third of the north wall on its west end are covered with particle board which sheathes approximately four-inch thick insulation. The windows on the west wall are, therefore, more recessed than the rest of the windows. The north wall has four windows on the eastern portion; the windows on the western portion are filled in with brick and covered with the aforementioned insulation. The non-office portion of the south wall has six windows fairly evenly spaced between the elevator and the

office partition. The west wall has three windows, one in the southern portion and two in the northern.

The third and fourth floors of Room 1 have few discrepancies. All of the windows on both levels are regularly spaced and of equal size. They all have wooden sills and wooden lintels and are all one over one light double hung replacement sash. On the third floor there are eighteen windows on the west wall and twenty on the east wall, as opposed to sixteen and nineteen of the third floor. Other changes include wall, floor and ceiling treatment. The walls of the third floor are the brick exterior walls, painted. The floor covering is the original wooden floor boards running the length of the room, while the ceiling also is covered in its original wooden boards. On the fourth floor most of the original material has been covered. The walls are covered in metal panel siding. The ceiling has composition panelling and the floors are made up of wood parquet tiles. Also the southern end of the fourth floor accommodates a steel I-beam frame, whose use is unknown.

Room 2 on the third floor is relatively unchanged. It is an open, L-shaped room, broken only by central row of vertical I-beam supporting members. The scrolled wooden pads which diffused the weight of the horizontal supporting beam are intact. There is additional horizontal I-beam bracing on the south side of the room. The segmental arched doorways have been infilled with brick above added I-beam lintels. The floors are hardwood, and the ceiling is covered in overlapping wood slats. Within the eastern portion of this room, chimney chutes are found at the base of the wall in the southwest corner of the west wall. The chimney chutes are also found on the upper floors and were presumably once found in this location on the lower floors, but have been removed or covered during alteration.

Like the third floor, the fourth floor of Room 2 has undergone little modification. There has been some additional I-beam framing along the south wall as well as the addition of some I-beam horizontal bracing of the ceiling beams. The fire doors leading to the western and northern legs of the building are also identical to those on other floors. The only other opening is the sliding fire door which gives access to the bridge over West Street. The floors are hardwood, and the ceiling is composed of overlapping wood slats. The third and fourth floors of Room 3 are all similar and have undergone only minimal alteration.

The fifth floor lofts are similar in configuration with the middle floors. Differences occur through virtue of being the upper floor. There are no columns running the length of the room. Instead, a system of metal tie rods, extending at an angle from the ends of the horizontal roof beams to a short metal I-beam dropped from the center of the beams, give added support. The other major difference is the gable roof monitors in Rooms 1 and 2. The monitors are wood-framed with steel sash awning windows and metal exterior sheathing. Above the center of the fifth floor is the attic under the triangular pediment which leads to the cupola above. The attic is accessed by an enclosed wooden stairwell located on the west wall of the fifth floor, north of the elevator shaft. The wooden stairs lead to a fully exposed wooden Queen Post truss system with cross braces, supporting the gabled roof of the

pediment and the cupola. From this attic level the original wooden spiral staircase leads up to the octagonal cupola. Each of the eight walls around the stairs has cross bracing for added stability. The stairs lead to the floor of the cupola which is open to the ceiling of the domed roof upon which sits the finial on the exterior. The ceiling of the cupola has a series of wooden ribs all convening at a central point.

The fifth floor of Room 2 also has minor differences. Rather than the replacement windows used throughout, steel sash awning windows are found on the east, south and west elevations. The same metal rods support the ceiling beam. There is also some horizontal I-beam cross bracing. On the north wall separating the northern section from this room, there is evidence of a small segmental arch window west of the door and a larger square opening east of the door. Both of these openings have been infilled with concrete and brick. This is the only evidence of openings in this fire wall on any floor. The other distinctive feature of this floor is the presence of two, wood framed, square ventilation shafts located in the eastern portion of the room. The exhaust fans have been removed.

The building was heated by steam radiators, some of which remain. There is little evidence of any historic lighting fixtures. The only indication is an iron wall bracket in the southwest stairwell between the second and third floors. The size and configuration of the bracket suggests that it could have been used to hang gas or kerosene lamps. Lighting today is provided by modern, suspended fluorescent tube lighting.

Excluding fire equipment, there is no machinery or evidence of production associated with the manufacturing of either pianos or paper products found in this building.

Mechanical Equipment Buildings (1869)

Two attached Mechanical Equipment Buildings project from the north end of the western section of the Piano Manufacturing Building, forming part of the western edge of the entire factory complex. They are both two story tall brick buildings. Originally they shared a brick firewall, although much of the wall has been removed on the interior to form one space. The building attached to the Piano Manufacturing Building is three bays wide and is covered with a slightly west-sloping composition roof. Each of the three bays was originally pierced with a large window. Today, the end windows have been boarded up, while the central bay window has been partially boarded up and partially enlarged to incorporate an overhead door addition.

To the north of the firewall is the second building, similarly three bays wide and fenestrated at each bay. Here, one of the windows has been bricked in, the second boarded up, and the third transformed into a door surrounded by brick infill. A wide chimney terminates the end of this addition to the north. The interiors of

these buildings are accessed on the east elevation, which is now an interior wall of the Match Manufacturing Building, which is located between these buildings and the Piano Manufacturing Building.

The Mechanical Equipment Building contains large boilers and other equipment used for both heating and processing. The two large boilers appear to date from the mid-twentieth century, but there is no nameplate on either boiler. The room contains one modern air compressor and several sub-grade tanks. The water heaters are operated by what appear to be early twentieth century motors, but, again, there are no nameplates with dates of patent or manufacture.

Over the southern section of the buildings, there is one tall iron smokestack. In the northern section, there is a number of large metal pipes which lead to a single roof vent.

The Coal House/Varnish Vault/Storage Buildings (1880s)

North of the two Mechanical Equipment Buildings is an open area. Heading north from this small open space is a narrow alley which originally divided two small brick buildings. These buildings were used for auxiliary functions. The alley has had a roof added with a fire door covering the opening, allowing for complete enclosure. The alley is approximately eight feet wide and twenty feet tall, the height of the adjacent buildings. The westernmost building is a brick structure divided into five rooms by brick load bearing walls and identified on the 1890 Sanborn Map as the Coal House, Varnish Vault, and Storage Building, respectively. Later the building received other additions and held other auxiliary functions. The south and east elevation of the Coal House is visible from inside the courtyard, while the elevations of the other portions of the building are completely enclosed by other structures. This building early formed part of the western edge of the complex, but is now contiguous to the recent concrete block warehouse which abuts it on the west. The curved, southeast corner of the Coal House is all that is visible. Steel sash louvre windows pierce the upper level of the building on the south and east elevations, while lower level openings at the south elevation have been infilled. The upper level of the east elevation is covered with corrugated metal panels. The flat roof is surmounted by a monitor whose walls are also covered with panels. The roofline is marked by a corbeled cornice line.

The interior of the Coal House was not accessible. The second room from the south is the Varnish Vault. The interior is a small one-story space with no openings except the door on the east elevation. The roof is a series of shallow brick barrel vaults.

The other three rooms are small rectangular rooms with no openings other than exterior fire doors, all of which open into the alley. The easternmost room has had an opening cut into the western wall allowing access to the warehouse.

There is no machinery or any evidence remaining of the historic processes associated with these buildings.

Garage (c. 1925)

East of the Coal House, Varnishing Room, Storage Building is a brick Garage separated from the Coal House by the covered alleyway, and set flush with the beginning of the alley. (Stairs leading from the courtyard to the roof of the alley provide access to all the different communicating roofs of the complex.) Its southern elevation is visible from the courtyard area, while its west elevation can be viewed from inside the alley. The north and east elevations abut other additions and are no longer exposed. The southern elevation is three bays wide, approximately 20 feet tall with a parapet above the central bay. The lower level has a central overhead wooden door with a horseshoe relieving arch above. This arch is infilled with brick. The upper level is pierced with two steel sash awning windows. Behind the parapet is a monitor. The interior of the building is accessed by a door at the rear of the alleyway. The interior is a tall, 20 foot high space. The east wall, originally an exterior wall, now serves as a common wall between this building and the Match Manufacturing Building addition, described later, to its east. The openings of this wall have thus been infilled with brick, and no interior connection between the two buildings exists.

In none of these alley buildings is there any evidence of historic use.

The Match Manufacturing Building (c. 1920)

An addition to the east of these brick structures is a large, one story tall space capped with a long series of steel-framed sawtooth monitors. This addition is actually nothing more than a roof which extends over a once open space, supported by the walls of previously existing structures. The Match Manufacturing Building abuts the west and north elevations of the Piano Manufacturing Building. The west wall of the Match Manufacturing Building abuts the east exterior walls of several smaller, brick structures which form the western perimeter of the original complex. The north wall is the southern end wall of several one story additions at the intersection of W. Cross and S. Eutaw Streets.

The interior of the Match Manufacturing Building is a large, abbreviated L-shaped space. It is divided into three longitudinal aisles by vertical steel I-beams. These I-beams support the steel truss of the monitor lights. The monitors extend from south to north, the entire length of the building and are of unequal lengths because of the building's plan. Seven long monitor lights fill the southern portion of the building, while four shorter ones fill the northern sector. Because the monitor lights have been covered with composition material, the awning windows are no longer operable, and no natural light penetrates the roof to the interior. The original windows of the Piano Manufacturing Building wall have been infilled and larger

openings have been cut into the brick wall. The Match Manufacturing Building connects, through these doors, to the northern section of the Piano Manufacturing Building. A large opening near the north end of this building penetrates other brick additions found at the north end of the Piano Manufacturing Building. The west wall of the building has nine large window bank openings, separated by brick pilasters, and now infilled with brick.

On either side of the openings to the Piano Manufacturing Building a series of small office spaces built of wooden partitions projects into the open space. The doors to these spaces open into the Match Manufacturing Building. The west wall of the Match Manufacturing Building has openings, from north to south, leading into various other buildings. At the south end of the room a door opens into the Mechanical Equipment Buildings attached to the west side of the south wing of the Piano Manufacturing Building. Just north of this opening along the west wall is a door that opens to the outside, at the location of the Garage and Coal, Varnish, and Storage Building. Continuing north along the west wall is another opening that enters into the long, narrow loading dock, constructed as one of the auxiliary buildings for the match manufacturing operations.

Towards the north end of the Match Manufacturing Building, a concrete block wall was added to delineate another room at the north end, which was at one time a separate building with brick walls. The original north elevation of this building is the only exposed elevation, located along W. Cross Street. It has a symmetrical, two bay facade which is flanked by two brick pilasters. The foundation is made of concrete. Two large 78 light steel sash windows, separated by a slightly projecting brick pilaster, form the bays. The parapeted roofline is capped with concrete. The roof slopes to drain out the northeast corner and is covered with strips of asphalt and tar. Heating or cooling equipment manufactured by York is situated at the center of the west side.

The interior is an open rectangular space with openings to the Match Manufacturing Building along the south wall and a ramp leading to the loading dock along the west wall.

Within the northern room of the Match Manufacturing Building is a modern heating system as well as a grouping of pipes against the west wall which appear to be water and/or gas pipes. The pipes cross to the east wall along the ceiling before extending into the full length of the Match Manufacturing Building. Some of the pipes are insulated, which suggests that they conveyed hot water. Faucets located at intervals the full length of the piping also suggest that the room contained production lines. A conveyor pad located north of the opening to the loading dock allowed movement of freight to the dock from the Match Manufacturing Building, which is three feet below grade.

Match Manufacturing Auxiliary Buildings:

The northwest corner of the original complex is defined by a loading dock and a long rectangular, one story building which parallels the loading dock. There are also two small rooms at the south end of these buildings. This grouping forms the Match Manufacturing Auxiliary Buildings. The corner building has a wood frame, brick veneer, and is rectangular in plan. Its south end abuts the north end of the Coal House, Varnishing Room, and Storage Building. Its western elevation abuts the recent concrete block warehouse, and its eastern elevation is a common wall with the loading dock. The northern elevation fronts W. Cross Street.

Loading Dock (1914-1951)

The Loading Dock is located between the larger one story Match Manufacturing Building and the smaller Packing Department to its east. This structure is a one story tall (although twenty feet in height) brick building. Its north elevation (the only exposed elevation) is one bay wide and is marked "Receiving Department." A monitor roof surmounts the slightly recessed loading door. The walls of the monitor are covered with corrugated metal panels and large asphalt shingles. Its slightly gabled roof is covered with tar. The monitor windows are steel sash.

The interior consists of an enclosed truck bay at the north end. Midway down the narrow interior is a concrete dock three feet above the grade of the bay.

Packing Department (1914-1951)

The north elevation along W. Cross Street does not have distinct bays. Its exterior is unadorned with brick walls laid in English bond. The parapeted roofline is covered with metal coping.

There are presently two openings on the now interior east wall leading to the loading dock. An opening to the west is now infilled with brick. The central metal door is preceded by metal steps and is flanked by two aluminum downspouts.

The interior is an open rectangle with a metal roof supported by a series of small Pratt trusses.

This structure's separation from other areas of production suggests that it was used for packing, or one of the final stages of production. There is a room at the south end of the building which is connected to what is called the Paint Room, located at the south end of the Loading Dock. This annex contains no equipment except an emergency shower and a ventilation shaft in the northeast corner of the room.

Machine Shop Building (c. 1925)

The Machine Shop Building is located east of the north end of the Match Manufacturing Building and north of the Printing Building, forming the corner at W. Cross Street and S. Eutaw Street. It is a one story tall, brick-veneered building, square in plan. The structure is supported by concrete piers. The east facade of this building, on S. Eutaw Street, is fenestrated with five different types of openings. A large overhead door at the north end is flanked by two small windows, the northernmost now being infilled. There is a large replacement window, south of which is a door cut into the brick wall. A small brick chimney protrudes from the southern end. The W. Cross Street elevation has nine bays formed by large window banks set in the brick wall. The windows are steel sash factory windows with metal grills. The flat roof is capped by a parapet lined by a row of headers.

The basically flat, tarred roof slopes slightly south to north to drain out the northeast corner. A rectangular monitor oriented east-west is situated centrally within the southernmost portion. It is covered with sheet metal panels. A few yards north of that monitor is a smaller rectangular one. The walls of this monitor are covered with what appear to be asphalt shingles. The brick chimneys at the southeast and northwest corners are banded. A small metal vent apparatus protrudes from the roof near its northwest corner.

The interior is a large, unbroken open space. There are two concrete piers which support the monitor. They are identical to the concrete piers which support the Printing Building. There are also steel poles added to support the roof beam in the northern portion of the building. On the exterior, the concrete piers of the monitor seem to define the northern edge of the Printing Building. However, on the interior, it belongs spatially to the Machine Shop Building. A rectangular area has been partitioned off with concrete block walls along the northwestern two-thirds of the western wall, to house restrooms. Work areas can be read on the interior by the painted walkways but there are no other indications of process.

The southern wall, originally an exterior wall of the building to the south, is divided into three equal portions by slightly projecting, concrete piers with flared tops. Both the eastern portion and western portion have a door and two square, casement windows each. In the eastern portion, the windows flank the door. In the western portion, the two windows are placed to the east of the door. The central portion has a large, rectangular 12 over 12 light casement window. The windows are all painted over.

The west wall, originally an exterior wall, has four asymmetrically placed openings. The southernmost opening is a large doorway into the larger Match Manufacturing Building. To the north of the doorway is a small, square window filled in with concrete block. To the north of the window is a concrete pier on line with the central support concrete columns. Two large windows to the north of the pier and within the restroom area are the same large factory windows found on the eastern

wall. One of the windows is painted over while the other is filled in with concrete block.

The ceiling is divided into two portions divided by the concrete piers. The ceiling is supported by a rafter system which, in turn, has some additional timber reinforcement. The smaller monitor contains an industrial fan.

The southern portion of the ceiling is lower, and is made of concrete slab. A large, rectangular monitor fills the central portion of the southern section. The wood-framed gable roof monitor has some of its original beaded board interior siding. The upper portion of the monitor is fenestrated with one rectangular, four over four light window on each of the east and west elevations and three rectangular four over four light windows on each of the north and south elevations.

Printing Building (1921)

The Printing Building is attached to the north end of the Piano Manufacturing Building and to the south end of the Machine Shop. It is a one story tall, brick building, rectangular in plan. The structure is supported by concrete piers. The S. Eutaw Street elevation is four bays long. Each bay has a large window opening, three of which have been infilled. The fourth bay, the farthest north, has the original steel sash awning window.

The rectangular open interior space has been broken into a series of small wood-and metal-partitioned offices. The floor is covered with carpeting, and the ceiling is covered in dropped acoustical tile. The windows of the east wall have been infilled and boarded up. This building is now connected to the Piano Manufacturing Building by a double metal framed, fixed light door of recent construction. There is no remaining evidence of production process.

South Block Description

The second block area, comprised of Knabe buildings, Maryland Baking Company buildings, and Holtite Manufacturing Company Buildings, and subsequent additions, is bounded by S. Eutaw Street (east), W. Ostend Street (south), Warner Street (west), and W. West Street (north). The block is cut approximately in half from north to south by China Alley.

Piano Mechanism Building (c. 1890)

Identified as the Miller Building on the 1890 Sanborn Map, the Piano Mechanism Building was constructed for William Knabe and Company. It is a five story plus

basement gable-roofed rectangular brick building, oriented lengthwise along W. West Street. It is bounded on the east and west by S. Eutaw Street and China Alley, respectively. According to the 1890 Sanborn and other sources, this building was originally four stories tall. The fifth floor was added, circa 1906, when the Piano Finishing Building (discussed later) was constructed to the south.

The north elevation, the primary facade, has a slightly projecting central pedimented pavilion flanked by two symmetrical wings to the east and west. This three-part facade is similar to that of the S. Eutaw Street facade of the Piano Manufacturing Building. The similarity was even more pronounced before a cupola which once occupied the center of the roof was removed. There are 14 bays, five in each of the side sections and four in the central portion.

The brickwork is laid with eight rows of stretchers to one row of headers. The second through fifth floor portion of the central section is inset, as are the central portions of each wing at the second and third floors. The inset portion of each wing is topped with brick corbelling. In the central portion, the inset is divided between the third and fourth floors with brick corbelling. Brick pilasters separate the first windows to the east and west in the central section at the fourth and fifth levels. Brick corbelling tops the fifth floor windows and extends about one-third of the way down the window.

The pediment has a brick tympanum centrally inset with a square, louvred vent topped with a keystone. According to a drawing from 1895, the tympanum was originally pierced by three square openings. The entire roofline has a metal cornice which is a replacement. Marks on the brick indicate that there may have been an entablature, since removed, which extended around the entire north, east, and west elevations.

Each level except the basement has fourteen openings. Because of the sloping ground, only the western portion of the basement has windows. There are three doorways opening into the first level, one in the central bay of each wing and a non-original one to the west of the door in the eastern wing. The doorways in each side section are arched. The western wing door appears to be original. A wooden panelled door is flanked by glass sidelights on its upper portion and wood panels on the lower. It is surmounted by a horizontal, rectangular wooden panel. Wooden pilasters flank the sidelights and support a wooden cornice surmounted by an arched wooden inset decorated with small designs. The easternmost entrance, obviously a replacement, has glass double doors surmounted by a glass transom. The metal door to the west of it was formerly a window.

All of the windows are replacements, except possibly those in the basement. The windows on the first through fourth levels are primarily one over one replacement sash. All of the windows on the fifth floor have been infilled with glass brick and are pierced with a square piece of plain glass or a ventilating screen. The windows have concrete sills.

The windows of the basement, first, second and third levels are topped with brick relieving arches. Those at the fourth and fifth floors are surmounted by flat standing brick arches, echoing the rounded doorways. The eastern wing is pierced at the second, third, and fourth floors by a corrugated metal covered bridge leading to the "knee," Room 2, of the Piano Manufacturing Building.

The two end (eastern and western) elevations were most likely identical originally. Even with alterations, they are essentially the same today. The central section of the facade is recessed on the second through fifth levels, similarly to the front elevation. A line of brick corbelling separates the third and fourth levels. The top of the recessed portion is corbelled also.

The gables on each end are centrally pierced by square louvred ventilation mechanisms which are topped by keystones. An early photograph indicates that openings were probably originally round vents surrounded by decorative moldings. The roofline is capped by a metal replacement cornice.

There are 22 openings on each end, plus six basement windows on the western facade. These openings are primarily windows. The windows on the basement through third levels are topped by brick relieving arches. Those on the fourth and fifth levels are topped by flat standing brick arches. All of the windows are replacements, primarily one over one double hung sash. All of the windows on the fifth floor on both ends have been infilled with glass brick pierced by single square panes of glass. All of the second floor windows on the eastern elevation are filled with glass brick as well. Several of the windows on the western elevation have been boarded up or had vent mechanisms inserted. The third window from the north on the second level on the same facade has been replaced with an aluminum-sided bridge to the Holtite Receiving Building, described later.

There is one door in each facade. On the eastern end the opening furthest to the north on the first level is an entrance. On the western end, a metal roll-up door occupies the first opening to the north on the fifth level.

The rear, or south, elevation is largely unobservable since it is partially obscured by other buildings and partially visually inaccessible. However, it appears to correspond in large part to the main north facade in configuration and detailing. Some of what are probably the original windows can be seen here. They are 12 over 12 light, double-hung wooden sash, curved to fill the arched window openings.

The gabled roof is covered with composition material. A square cupola topped by a four-sided, peaked roof once rose from the center of the roof, south of the central front gable.

The interior of this building has been altered since its original days as a piano factory. Each of the five floors has been somewhat transformed to accommodate newer office spaces and manufacturing areas.

The basement level has probably been transformed the least. It has a comparatively low ceiling height of approximately eight feet, and is divided in half lengthwise by a series of brick piers running down the center of the floor. The piers, measuring approximately two feet by two feet, support a large beam extending the length of the space, while smaller beams run across the width of the building. Half-windows located at the upper portion of the north wall have been painted over. Halfway down the length of the building is a series of three brick piers set at an angle to the central piers, close to the west wall. They measure approximately three feet by three feet. Along the north and south walls, rooms are delineated by either cages or wooden partitions. These rooms contain mechanical, electrical and other equipment, most of which relates to the overall running of the building itself, as opposed to the manufacturing process. This equipment includes electrical switch boxes containing master switches for the entire building, a heating pump, and the water supply system for the fire sprinkler system. Much of the electrical equipment in the whole building was manufactured by Square D Company of Detroit.

Two large horizontal, rounded tanks are situated at the west end of the building. Two sets of markings on each tank indicate that the tanks held at various times wax and 19,500 pounds of coconut oil.

gallons?

The first floor is split into office and reception areas and a cafeteria, with the former occupying approximately one-third of the space at the eastern end and the latter two-thirds at the western end. The cafeteria, named "Marylandette," is further divided into serving and eating areas. Original materials are largely obscured in the cafeteria, with the floor covered with carpeting, the walls with painted plasterboard, and the ceiling with an insulated dropped acoustical tile ceiling. Where the tiles are broken, the original ceiling materials of wooden latitudinal planks reinforced with longitudinal rafters are visible. A safety promotion poster in the cafeteria provides clues as to the activities in the building complex prior to the departure of the Maryland Baking Company. The following departments or divisions are listed: PJ/BFC, bakery, straw wrap, straw, straw, plate, ESPG, Flex-E-Fill, toothpick, maintenance, and engineering.

On the second floor, the original configuration of rooms has been entirely lost due to the addition of multiple offices aligned along the entire north wall and half of the south wall. All of the walls have been furred out, so the original brick is no longer visible, all of the windows have been replaced with one over one light, double hung sash, the ceiling has been dropped and the floor has been covered with carpeting or a linoleum surface. The east end of the floor still has the original floorboards, and the stairwell and elevator shaft are still found along the southeast wall. At the west end of the space, five cast-iron columns running down the length of the axis are still in place, but form more of an implied wall between a central corridor and office spaces, than an obvious structural support. These columns have fat, baseless shafts

and Corinthian capitals. The shafts have no entasis, and while the capitals are delicately detailed, the columns are in general much less sophisticated than the leaner, more attenuated versions in the Piano Manufacturing Building across the street. At the western end of the central corridor, a door leads out to a metal bridge connecting this building with those located on the western side of China Alley.

The third floor has been similarly partitioned off into a series of office spaces, but to a much lesser degree. Here, the east and southwest ends of the floor have large wooden office areas, while the rest of the floor is fairly open space. Eleven columns, as opposed to five on the floor below, extend from one end of the long axis to the other and are a much more prominent feature of the space. The columns support a long wooden beam which extends the length of the room. Although the walls in the office spaces are furred out from the original brick, most of the other wall area has been left unaltered. The entire north wall is the original brick and all of the windows, although replacements, are still in place with the original wood sills and wood lintels. In contrast, those along the south wall have been infilled with brick, as an addition along this wall abuts the Piano Mechanism Building. In some areas the wooden beam ceiling has been covered with acoustical tile, just as the diagonal wooden floorboards have been carpeted. Large sliding fire doors are located on the north and south walls of this floor near the east end. The door on the north wall opens onto a bridge which connects the Piano Mechanism Building with the Piano Manufacturing Building. The door on the south wall opens into an extensive five story addition, the 1906 Piano Finishing Building, described later in the documentation.

The fourth floor is less compartmentalized than those below. The room is basically a long, open rectangle with walls of painted brick. Fire doors at the east and west sides lead respectively to the Piano Finishing Building and the bridge connection to the Piano Manufacturing Building. The north wall is lined with windows, all having one over one light double hung replacement sash, and the south wall has windows which have been boarded up. The open space is divided into two long aisles by a series of piers (metal I-beams) extending the length of the room. These most likely replaced original cast-iron columns as found elsewhere in the building. One area of the open space, at the northeast end of the floor, has been enclosed by a metal cage. Inside the cage are a number of large machines and equipment that includes compressors, suction accumulators, modern cooling systems, and other devices. This was the machine room for doughlines, used when the building was taken over by Maryland Baking Company. The circuit breakers on this floor are marked, "buss duct feeder - fifth floor, fitz mill grinder, baker, blower - fifth floor, and machine shop - fifth floor."

The fifth and top floor of the Piano Mechanism Building is presently divided into four different work spaces. Two rooms in the northeast corner are formed by concrete block walls. An insubstantial partition wall pierced by occasional doors and windows runs the length of the building creating offices along the north wall.

The fifth level has a concrete floor which supports 150 pounds per square foot. The floor is edged with roughly rounded, convex concrete moldings. The walls are made of painted brick. The gabled ceiling is made of transversal wooden boards reinforced with trusses and rafters. A dropped acoustical ceiling covers the southern portion of the room.

The roof is pierced in several places with chutes, or openings for chutes of various sizes, approximately eight inches to two feet in diameter. Marks on the floor visible underneath the chutes indicate the former presence of equipment. The largest remaining chute, located at the approximate center of the west end, is topped with a sifting mechanism.

In the center of the ceiling is a large opening where a cupola originally rose from the roof. The opening now is lined with sheets of corrugated metal inset with fans.

There are 17 openings on the north wall, three on the east wall, eight on the south wall, and four on the west wall. Those on the north elevation are windows, the five easternmost of which are bricked in. The windows are all the same size except for the one located third from the west, which is larger. The openings on the east wall are bricked in windows. Two of the openings on the southern wall are doors. One which is a large metal sliding door providing access to the Piano Finishing Building is located between the southeast stairwell and the freight elevator. Corrugated metal doors to the west of the elevator open onto the five story addition. The remaining openings are windows, one of which is boarded over. Three of the four openings on the western wall are windows. The northernmost opening is a loading dock with a roll-up metal door.

The windows are recessed approximately one foot. They have arched brick lintels and concrete sills which angle out and downward into the room.

No manufacturing equipment remains on this floor. However, a variety of pipes are suspended from the ceiling and air circulation equipment is extant. One series of five pipes runs the entire length of the room along the northern edge. The northeasternmost room is equipped with a large number of pipes -- standing, suspended, and attached to the walls. This room also features a sink on the eastern wall and a central drain. A sign on its exterior near a door by the stairwell is marked "Caution--hearing protection required." There is a heater on the western third of the southern wall which vents to the roof, and a heating duct near the north side of the stairwell on the western wall. That duct connects to a mechanism directly below it on the fourth floor. Circuit-breaker switches on the east wall are identified as being for the wall exhaust, sifter mixing room, Doc's mixer outlet dough room, transformer feed, exhaust fan top #15, exhaust fan top mix room - West Street, Welder outlet, grinder lathe, dough pump, and cleanup pump.

The Piano Finishing Building (c. 1906)

The Piano Finishing Building is a large, rectangular, five-story brick fireproof addition appended to the south end of the east side of the Piano Mechanism Building. The building is surrounded on the north, south, and west by other structures, but has a front elevation along S. Eutaw Street. This elevation, south of W. West Street is aligned with the east wing of the Piano Manufacturing Building, located north of it, and perpendicular to the Piano Mechanism Building. It is of the same scale as these original buildings and has a design sympathetic to them. This structure uses the gabled end of the Piano Mechanism Building and extends south to terminate with another gabled end. The overall effect, including the Piano Mechanism Building end, is of a five part facade consisting of a slightly projecting, unpedimented, central pavilion connected to two slightly projecting gabled end pavilions by wings equal in height to the central and end pavilions.

The central pavilion is three bays wide and fenestrated at each of the five levels. The first, or ground floor level consists of three openings separated by concrete pilasters with Corinthian capitals supporting an entablature and projecting cornice. The northern opening is a recessed overhead truck loading door with a metal surround and a tarp covering the edges. The central opening is similarly an overhead door, but is only slightly recessed and has brick infill surrounding it. The third opening, at the south end of this central pavilion, is a small window, now boarded up. It is surrounded by brick infill corresponding to a larger window opening and having a concrete lintel. Two pilasters on the north and south ends of the central pavilion, flank narrow niche-like window openings now infilled with brick. Both niche-like openings have concrete sills. The pilasters support an entablature and cornice with modillions which separate the first level of the central pavilion from the upper stories.

The second and third floors are practically identical. Three windows pierce the three bays at both levels, and niche-like windows at both the north and south articulate the ends of the pavilion. Both of the niche-like windows have been infilled with brick. Those at the second level have concrete sills and concrete lintels, while those at the third level display only the concrete sills. The windows of these two levels are six light replacement sash, practically flush with the exterior wall surface. Flat concrete lintels surmount them.

The fourth and fifth floor have actually been combined into one large floor by giant pilasters that separate the three bays of windows and span both levels. The windows of the fourth and fifth floors are identical to those of the second and third floors below, except that those of the fifth floor do not have concrete lintels. The giant order of pilasters flanks, on both ends, infilled niche-like windows at both the fourth and fifth floor levels. A metal replacement cornice with three fascia surmounts the central pavilion and extends to either wing and the end pavilions.

The two wings connecting the central pavilion with the two end pavilions are similarly five stories tall. They are both four bays wide and are fenestrated at all levels. The lower levels of the north wing have been transformed to accommodate truck loading overhead doors at all four bays, while the original windows at the

south bay have been infilled, and smaller windows, now boarded up, have been cut into this infill. The bay closest to the central pavilion on the south wing has a door cut into it and double stairs preceding it that terminate at a central platform. A metal awning projects over the stair platform and is supported by narrow wood poles. The actual door is recessed and is now boarded up. Concrete lintels and sills are located above and below the original openings, now infilled, of the south wing. A concrete stringcourse separates the first floor from the second and third floors above.

The second and third floors of both wings are identical. Four windows pierce the four bays at both wings. The windows are six light replacement sash identical to those found at these levels of the central pavilion. Concrete sills and lintels articulate each of the windows. One window, located at the second bay, from the central pavilion, of the north wing has been lightly altered. It has received some kind of a metal sill that extends down through the stringcourse separating the first floor from the second floor on the exterior.

The fourth and fifth floors, as on the central pavilion, have been combined into one, by the use of giant order pilasters. These pilasters separate the different bays. Windows pierce each of the four bays at both levels on both wings. They are six light replacement windows. One window on the fifth floor, the closest to the central bay on the south wing, has been covered with a metal roll-up door.

The two end pavilions differ significantly as they were constructed separately and are part of two different buildings. The north end pavilion is the east end elevation of the Piano Mechanism Building which has been described above. The south end pavilion was built to balance the already existing Piano Mechanism Building end and to give overall symmetry to the new addition and its east facade. This end pavilion projects slightly from the connecting wings, is five stories tall and has a gabled roof, whose end is located at this eastern facade. It is located on a slight incline and thus has a concrete base visible. This end pavilion, like the central pavilion, is three bays wide. It is fenestrated at each bay at all five levels, though the openings of the first floor have been infilled.

A central opening on the first floor of the south end pavilion has been enlarged and infilled with brick. Flanking the central infill are two other window openings infilled. The opening to the north has a smaller opening cut into it. The original concrete sills and lintels of these windows are still in place. Only the sill of the central opening has been removed and replaced, at a lower level, by another concrete sill. The second through fifth floors of this end pavilion are almost identical with six light windows at every bay on each floor. Each of the windows has its original concrete lintel and sill. All of the window sash are replacements, however. A large square factory window is located at the center of the end gable.

The upper four levels of the south elevation of this building are visible above the small one story garage addition attached to its south end. These upper levels are

articulated identically to the front facade. Six light replacement sash fit into the original window openings and use the original concrete sills and lintels.

While the lower level of the east facade of this building functions as a loading dock area and was most likely transformed in the mid-twentieth century to accommodate trucks and their shipments, the main points of entry to the interior for pedestrians are through doors from the Piano Mechanism Building and the buildings to the west. On each floor, a sliding door placed in the central portion of the northern wall permits access from the Piano Mechanism Building. Each level has a concrete floor, painted brick walls, and a wooden ceiling of painted longitudinal planks. Rafters provide additional support, running both longitudinally and latitudinally. Two longitudinal rows of evenly spaced concrete columns divide each floor into three long rectangles. Further interior divisions are created by, for the most part, temporary walls. A centrally placed freight elevator and attached enclosed stairwell run to all floors. The stairwell was previously lit by windows on its eastern wall. They are now painted over.

? joists?

The first floor is divided approximately half and half between a large, open loading dock area on the north and several smaller office and work spaces on the south end. Presently, there are six loading doors made of wood panels opening north onto S. Eutaw Street and an abandoned rail spur line. The loading doors are separated by brick piers. Additional pedestrian doors are located to the south. They open into office spaces.

Offices occupy the northern two-thirds of the central portion of the building. Open space between the freight elevator and the western wall provides a "hallway" access to some offices, a storeroom, a restroom, and a large work or storage space which runs the entire depth of the building on its southern end. A small sliding metal door to the west of the central door on the northern wall allows access to a chute. Around the corner to the west, a small metal door opens into the five story tall addition located at the corner of the two buildings. Further south on the west wall, approximately in the center, is another opening to a different addition, one and one-quarter stories tall. This doorway presently has sliding corrugated metal doors but previously had a metal roll-up door. In the southern room, swinging metal doors lead to the previously mentioned addition.

On the west wall, several large bricked-in windows can be seen, one in the southern room and two just south of the sliding metal doors to the additions. The upper four floors have additional similarities borne of their being production rather than shipping areas. For instance, the second through fifth floors are all similarly fenestrated, with 16 windows on the east wall, three windows on the southern wall, and 11 windows on the western wall. Most of the windows are one of two large sizes and are replacements. The majority of the present windows, are aluminum frame, three over three light, with the upper panes larger than the lower. The windows are recessed approximately one foot, and have concrete sills and lintels. The original windows apparently were tripartite, composed of a twelve over twelve light section flanked on each side by six over six light sections. The muntins were made of wood.

The fifth and eighth bays from the north on each floor are flanked by tall, narrow windows which are filled in with concrete block.

The second floor is a large open space broken only by an enclosed portion in the northeast corner which appears to have been a lavatory, a small concrete block elevator control room attached to the central portion of the western wall, and fenced in electrical equipment slightly to the north. The ceiling is further supported in places by squared wooden beams and metal I-beams. Hanging from the ceiling are variously sized sprinkler and other pipes, and fans. The westernmost window on the southern wall is boarded over.

The third floor space is more subdivided than that on the second. Similar to the floor below, there is a small enclosed space in the northeast corner. In this case, it was clearly a lavatory. Some office spaces occupy the center portion of the room from the elevator to the eastern wall. These spaces are created by the use of insubstantial partitions. They are covered by a dropped acoustical ceiling. Additional subdivisions are created by partitions made of wooden planks and wire mesh. The three northernmost windows on the western wall are bricked in. The second from the south on this wall serves as a fire escape.

The fourth floor may have once had a northeast corner room similar to that of the second and third, as there are marks on the floor indicating same. However, no room exists today. Some offices have been partitioned off east of the elevator to the eastern wall. Other areas have been sectioned off with the plank and wire mesh system previously mentioned. The southern part of the ceiling has been reinforced with metal I-beams. The columns in this same area are encased in steel. The first three windows from the north on the western wall are painted over and appear to be original.

The fifth floor is partitioned approximately in half along its central depth, along the north edge of the elevator/stairwell. The main portion of the room has a gabled ceiling running north-south. South of this central section is the end portion of the building which has a gabled ceiling oriented east-west. The eastern-facing gable is inset with a large 32 light window. The western gable end is inset with two fans. The roof in the southern portion is pierced with eight chutes and/or openings for chutes.

The northernmost three windows on the western wall are blocked off. The first one from the north is now a doorway. The next two are filled with glass brick inset with a pane of clear glass. The seventh window from the south on the eastern wall has been replaced with a roll-up metal door. To the north of the door is a piece of metal machinery approximately four feet tall. Its open-topped tank portion has what appears to be wax in the bottom.

The Spinning, Boring, and Turning Building is located in the northeast corner at the juncture of the Piano Mechanism Building and the Piano Finishing Building. It is a five story addition which abuts the two large buildings on its east and north elevations. It is square in plan and has a flat parapet roof and windows on the upper three stories at the south and west elevations. The construction of later buildings has resulted in the infill of windows on the first two floors.

The southern elevation has three bays with windows at each bay. The central bay has double windows, while the side bays have one window each. On the fourth and fifth floors, these windows are glass block, while on the third floor there are one over one light double hung replacement sash.

The interior consists of five floors and no basement level. The first floor of the addition is accessed by a sliding fire door located on the west wall of the Piano Finishing Building. It is an enclosed square space, with all of the windows infilled with brick, as all of its four walls abut, or are abutted by other buildings. Staggered I-beams and brick piers form the main support of this floor. The east wall of the room was originally the exterior west wall of the Piano Finishing Building and the north wall was originally the exterior wall of the Piano Mechanism Building. The floor is concrete slab, and the ceiling has wooden beams supported by the piers.

The square plan of the second floor has been divided in half by a wood partition extending from floor to ceiling. The south half of the space is accessed by a fire door from the Piano Finishing Building, while the north half is accessed by a door west of the elevator shaft in the Piano Mechanism Building. Both of the rooms are entirely enclosed; windows have been infilled with brick, and no other openings to the exterior exist.

The third floor is a single square space, as is the first floor, but is entered this time from the Piano Mechanism Building, not the Piano Finishing Building. Here the space is not open, but has been partitioned off into office areas. The ceiling has been dropped; the floor has been carpeted and a bathroom has been constructed at the northeast corner of the room. This floor, because it is above the level of the Maryland Paper Products Corporation Addition, described later, is lit by windows on these sides. A door on the west wall opens onto a fire escape that leads to the roof of the Maryland Paper Products Corporation Addition adjacent to this five-story addition. Wooden partitions run along the north wall and form a series of private offices with separate doors.

The fourth floor is again entered from the Piano Mechanism Building, west of the elevator. The square space is also partitioned off, by wood dividers. The floors are covered with plywood and the ceiling is tiled. Windows on the south wall are glass block windows with central louvre panes that allow for opening. On the east wall, the original exterior wall to the Piano Finishing Building, are three steel sash windows, now painted over. These windows are probably the original windows to the Piano Finishing Building.

The fifth floor can be accessed from both the Piano Finishing Building and the Piano Mechanism Building. The space has once again been divided into offices. The partitions are made of wood and are randomly placed. The windows on the south wall have steel block and concrete sills and look out over the complex of roofs to the south and to the Piano Finishing Building to the east.

Maryland Paper Products Corporation Addition (1953)

Extending west of the Piano Finishing Building, south of the Piano Mechanism Building and south of the Spinning, Boring, and Turning Building, to China Alley on the west and to an alleyway on the south, is an extensive one story addition, ranging in height from 15 feet to 30 feet. It has an abbreviated L-shaped plan, and is essentially infill to the already existing structures, making use of their walls on the north and east sides. The west and south walls of the building are constructed of concrete block and are visible along China Alley and a small alleyway perpendicular to China Alley.

The interior space, although divided into two portions of slightly different heights, is one large open space. Steel I-beam piers extend the length of the axis, dividing the space into an east and a west section. The eastern portion is the one story, or approximately 15 foot tall area, which uses the exterior west wall of the Piano Finishing Building as its east wall and the south wall of the Spinning, Boring, and Turning Building as its north wall. The windows of these walls have all been infilled with brick. A large fire door communicates with the Piano Finishing Building through their common wall. The western portion is approximately 24 feet tall and uses the south wall of the Piano Finishing Building, while providing its own western wall of concrete block. A large machine room at this north end is delineated from the open area by concrete block. In this room is located a large chute which connects to a corresponding sugar or flour chute located on the roof. At the north end of this room are two rooms, one of which is a half story up. The other room is on level with the basement of the Piano Mechanism Building. The upper room contains several additional wax tanks. The lower room contains several seemingly early twentieth century motors and two belt-driven processing machines with flues leading to upper floors.

Workrooms made of various materials can be found at the southern end of the space. Two of these workrooms are identified as a plate mounting room and a flammable liquids room. Steps at the southern end on the east and west sides lead up to a steel-framed platform which contains what is labelled as a solution machine, hot water heaters, two large wax tanks, and water filters. There are numerous pipes which lead from the equipment on this platform the full length of the room. In the mid-point of the west wall is another control station. There are several storage rooms and stock rooms beneath the platform on the south wall.

The new concrete block walls and the brick walls of the already existing structures are covered by a flat metal roof supported by a series of Pratt trusses. The metal

beams are covered with metal panels and a composition material covers the exterior. The floor is a large concrete slab with metal grates which open up to a crawl space area underneath. The south end of this addition aligns with the end of the Piano Finishing Building and both buildings front the same narrow alleyway. This alleyway runs from China Alley to the southwest corner of the Piano Finishing Building. At this east end of the alleyway is a door which enters a loading dock building added onto the south end of the Piano Finishing Building along S. Eutaw Street. From this alleyway, one can penetrate two more buildings farther south, a Press Room and a Mechanical Equipment Building, which extend from the alleyway south to W. Ostend Street. These buildings form part of the Holtite Manufacturing Company complex.

Holtite Manufacturing Press Room (1949)

This Press Room forms the corner of the complex at S. Eutaw Street and W. Ostend Street. It is a one and one-half story brick building separated from the Piano Finishing Building by a narrow brick loading dock infill building pierced with an overhead roll-up door. This was most likely part of the open alley that was covered to form a garage when trucking became the predominant mode of transporting goods to factories in the mid-twentieth century. The east elevation of the Press Room has three windows covered with corrugated metal panels and a large overhead door at the northern end. A monitor roof is located over the southern portion of the building. The south elevation, along W. Ostend Street, is divided into four bays, each one pierced by four windows at the upper level, also covered with corrugated metal panels. Flat brick lintels surmount the windows, while brick sills can be found below. The parapet cornice is defined by a row of stretcher bricks. The monitor roof is set back slightly and not visible behind the parapet roof. The interior of this building does not connect with any other interiors and can only be penetrated through the doors located on S. Eutaw and W. Ostend Streets, which are inaccessible. As viewed through the monitor on the roof, the interior is an open square in plan. It is a tall one story space with a wooden catwalk on all four sides at the level of the monitor. A central open area looks down to the open floor below.

Holtite Mechanical Equipment Building (1944)

Next to the Press Room is another brick structure which is two stories tall and serves as the mechanical equipment facility for Holtite Manufacturers. It is separated from the Press Room by a small alley approximately 10 feet wide and 20 feet long. The alley is blocked off from the street by a metal gate and it is covered with a roof and terminated by the back exterior wall of another structure. Both the Press Room and the Mechanical Equipment Building front W. Ostend Street and are slightly terraced up a ramp which leads west to China Alley. They are of similar construction and share some of the same architectural motifs.

The Mechanical Equipment Building, west of the recessed alleyway, is similar to the Press Room, except that it is two stories tall as opposed to one and one-half. It has

two decorative stringcourses as well as a decorative cornice line. The fenestration consists, from east to west, of a boarded up window at the lower level, an overhead freight door, a metal door accessed by a staircase with a window above, and finally a raised overhead door for truck loading. This structure turns the corner at China Alley. The China Alley elevation is similar to the W. Ostend Street elevation complete with fenestration and decorative brickwork. Here some of the windows have steel sash, while others are one over one light double hung replacement windows. Ventilation ducts are located at the lower level. The flat roof of this structure supports a tall smokestack with a shaft of ceramic tile.

These buildings extend north to abut the small alleyway located between the Piano Mechanism Building and its additions, and the buildings along S. Ostend Street. While the Press Room located at the corner of S. Ostend and S. Eutaw Streets is impenetrable, the second structure can be entered from the alleyway. From this alley one is lead into a smaller room separated from the main room by a ceramic tile wall. This antechamber is a machine room with offices at a loft level above. A door on the west wall of this antechamber leads out into China Alley. A door penetrating the ceramic tile wall leads into the main boiler room with a large ceramic tile smokestack in the northwest corner. It was manufactured by the American Chimney Corporation of New York City. The smokestack actually extends from the floor of this room, up through the ceiling and roof of the structure. West of the boiler room is the air compressor room. All of the boilers and air compressors are of recent vintage. The boiler is a Cleaver Brooks Model 4 Watertube Boiler.

Along the east wall is a two story section. These rooms appear to have functioned as workshop, office, and storage areas. Metal staircases connect the levels.

West Half of South Block

Across China Alley to the west is another complex of structures related to Holtite Manufacturing Company. The complex is a row of contiguous brick buildings located in the half block bounded by China Alley to the east, Warner Street to the west, W. West Street to the north, and W. Ostend Street to the south. The first building in this block was constructed at the corner of Warner and W. Ostend Streets with additions extending north to West Street. All ground level interiors have had many openings cut into the common walls, creating virtually one large interior space. All windows in these common walls (originally exterior walls) have been either removed or infilled.

Holtite Factory Building No. 1 (c. 1920)

Holtite Factory Building No. 1 is a rectangular brick structure. The W. Ostend Street elevation reads as two separate buildings, the rear reading as a later addition.. The first structure, at the corner of China Alley and W. Ostend Street, is

a two story, brick, rectangular building appended to a longer, larger structure to its west. The south elevation of this first building is pierced with two windows at both the first and second stories. Six over five light steel sash windows appear on the lower level, while four over five light steel sash windows are found at the upper floor. Decorative brickwork ornaments the cornice line, and a similarly decorated stringcourse runs along the lower level. One of the windows at the lower level is now covered with metal panels.

The larger building is a one story building with a stepped roofline and a central, wood framed monitor. Seven replacement windows stretch across the south elevation, and all have one over one light double-hung sash with reinforced wire glass panes. Corbelling defines the cornice line. The Warner Street elevation has one large window opening and an roll-top door covered with a metal grill, both of which are replacements. The gable end of the monitor roof is visible from this elevation. It has large overhanging eaves and a central, west-facing window.

The interior of this building is now penetrated at ground level through the additions along Warner Street to the north. It is a large, open space. Steel I-beam roof beams span the width of the area, leaving the floor unencumbered with piers. This is a large machine work area (although no equipment remains), with the monitor roof above to provide the necessary natural light and ventilation. At the western end of the room, a wooden partition divides the space off, providing another smaller area for loading. The eastern end has a door connecting the main room to the smaller two story structure found at the corner of W. Ostend Street and China Alley.

The interior of this building is also divided into two separate rooms. The northern room is the boiler room. The southern room has two separate floors. The lower level is a garage and shop area. The upper level loft space is also a workroom although the specific function is unknown. The monitor roof which covers this end of the building is visible from this upper level.

Holtite Factory No. 2 (ca. 1920)

Holtite Factory No. 2 joins Factory No. 1 to the north along Warner Street. Similar to Factory No. 1, this building is also rectangular in plan, extending from Warner Street east to China Alley. The Warner Street elevation shows a two story structure with a third story projecting above the flat roof. The projection is located on the China Alley side. The Warner Street facade is fenestrated at both the first and second levels. What appear to be original six over three steel sash windows are located at the second level while replacement windows on the first floor flank a central overhead door. The only decorative element is the corbelled cornice line.

The interior of Factory No. 2 is different at each of the levels. The first floor level is a large open space which connects with Factory Building No. 1 and Factory Building No. 3, and extends all the way from Warner Street to China Alley, uninterrupted.

Steel I-beams are used for both the vertical piers and the cross-bracing added to the timber rafter system.

The upper level consists of a one story area in the western end of the building, fronting on Warner Street, and a double story area located at eastern half of the structure, opening onto China Alley. This southern section consists of a large open area with a half loft, wood framed storage room. The northern half of the building is at a slightly lower level and consists of a rectangular room. The wall separating the northern section of the building from the southern section is brick with infilled windows. It appears as if this wall were originally the exterior elevation of this building, until this two story rear section was added.

Holtite Factory No.3 (c. 1925)

This is a low, one and one-half story tall structure which has been significantly altered on its Warner Street elevation. Windows at the first floor have all been infilled, and the basement level windows are boarded over. Only the attic level windows which are steel sash factory windows with steel lintels remain unaltered. The only decoration is the corbeled cornice line.

The first level is similar to the lower levels of the adjoining buildings in that it is an open space, broken only by the steel I-beam piers. It differs from the other buildings as it is the only building to have a basement. The second story is a loft area of office spaces along the Warner Street wall from which the first floor can be observed.

Holtite Factory No.4 (c. 1945)

This is the tallest of the Holtite buildings. It is four stories tall with windows marking all levels, and a large overhanging roll-up door on the first floor. The upper level windows appear to be the original steel sash type, while all others are replacement one over one light double hung sash, or glass block. There is no decorative corbelling at the cornice line or other articulation of the Warner Street elevation. However, the upper levels of the south elevation can be seen from Warner Street. This long elevation which extends from Warner Street to China Alley is divided into at least seven bays which are delineated by brick pilasters.

While the open first floor of this building is similar to the others, the upper levels have been partitioned into a labyrinth of office spaces. Wood panelled rooms have been added, and walls have been furred from the brick walls. A large warehouse is located on the third level at the eastern end of the building toward China Alley. The warehouse roof and steel framed monitor is supported by a steel I-beam rafter system.

Holtite Factory Building No. 5 (c. 1939)

Factory Building No. 5 is a two story, brick building which has a truncated "L"-shaped plan which is a mirror of the plan for Holtite Factory No. 6, discussed later. Windows and overhang doors are found both at the first and second levels, and a monitor light above. The second level windows are all replacements. The first level has a central overhang door (several feet above grade) flanked by small windows, which through infill have been reconfigured.

A small two room addition is found on the China Alley elevation. The addition has a cast stone veneer and two garage door openings to the alley.

The first floor interior connects with all the other additions and is similarly an open space with vertical I-beams supporting the floors above. The second floor is divided into two areas. The eastern section of the building, looking onto China Alley, is partitioned into office areas, with windows located in the upper portion of the wall. The western portion, looking towards Warner Street, is a large, open space. The ceiling is slightly gabled with a center ridge beam supported by vertical steel I-beams. Wooden beams extend across the room to either side of the ridge. A freight elevator shaft is located along this wall. West of the shaft is a stair and door leading to the third floor of Holtite Factory No. 4, described above. In the northwest corner of the building is a loading dock area lower than the other sections of the second story and supported by additional I-beams on the first story. There is a thick concrete slab floor in this section, apparently because of heavy floor loads. Stairs lead from the loading dock to a wooden storage loft above. Just east of this concrete pad is a raised wood-framed storage area which contains the monitor roof, visible on the exterior.

Holtite Factory Building No. 6 (c. 1945)

Holtite Factory Building No. 6 forms the corner of Warner Street and W. West Street. The building is a two story brick structure with a brick tower at the south end. Three windows, all replacements, are located at the second floor, while two central steel sash windows at the first floor are flanked by two metal door openings. A slight break line distinguishes this building from Holtite Factory Building No. 5 on this exterior elevation.

The W. West Street elevation is 13 bays long, all of which are fairly evenly spaced windows except the fourth bay from the west, which is a wood-panelled freight door. The brick is laid in English bond. Each level is separated by a stringcourse of vertical stretchers. The flat roof is defined by a brick corbel and cornice line, and surmounted by a gable-roofed monitor on the easternmost portion.

All the windows have brick sills formed of a projecting row of headers. There are seven steel sash factory windows on the first floor. Some of the windows are inset with ventilation mechanisms. The second floor also has seven windows. Some of the second and third floor windows are smaller than those found on the first.

The basement has a concrete floor and painted brick walls. Two rows of evenly-spaced I-beams support the wooden rafter system. The rafters are cross-braced with slender wooden strips. The north wall is fenestrated with 11 evenly-spaced hopper windows, some of which are painted over. Two contain fans.

The majority of the basement is a large open area. A few office spaces are partitioned off in the northwest corner. An enclosed wooden stairwell containing wooden stairs and leading to the first floor is attached to the western portion of the far southern wall. Marks near the center of the near southern wall indicate the presence of a staircase, which is no longer extant. A freight elevator manufactured by the St. Louis Fire Door Company is situated in the southwest corner and runs from the basement up to the second floor.

The first floor is very similar in lay-out and materials to the basement. An office area has been partitioned in the northwest corner accessed by the main exterior door. Two rooms are partitioned off on the center part of the eastern wall. One was a restroom, the other probably storage. To the south of the storage room an exterior door, leading to China Alley. There are two fire doors which connect this building with Holtite Factory Building No. 2.

The second floor is the same configurations as the first but has been subdivided into office areas. Modifications include carpeting, gypsum board wall sheathing, and dropped acoustic tile ceiling.

A door in the southeast corner leads to the bridge to the Piano Mechanism Building, and to a flight of stair leading to a partial third floor. The half-floor contains rooms identified on their doors as restrooms and a conference room. They were not accessible.

III. Historical Information

Piano Industry in America

A German immigrant, Johann Behrent, built the first American pianoforte in 1775, in New York. In the first two decades of the nineteenth century, there were probably six to eight piano makers in New York, three or four in Philadelphia, two or three in Baltimore, and a half a dozen or more in Boston. The American market for pianos during this period was limited by a strong prejudice in favor of European

imports, even though the imported products were frequently unable to withstand the rigors of the American climate.

Boston was the center of innovation from 1800 through the 1850s. Alpheus Babcock took out a patent in 1825 for a one piece cast-iron frame for a square piano (one with the strings running horizontally, rather than vertically as in an upright, but parallel with the keyboard, rather than perpendicular, as in the grand piano). This innovation permitted a stronger piano, one better able to resist changes in temperature, and also providing a larger and fuller tone. His invention was soon improved on by Jonas Chickering, whose company dominated the U. S. piano market through mid-century.

Demand for the piano, with its associations to the domesticity, leisure and culture to which the growing American middle class aspired, increased rapidly during the second decade of the nineteenth century. Again, it was Jonas Chickering, in Boston, who found an innovative way to respond to this new and expanding market. In 1853 he began construction of a new factory. Located on a corner lot, with street frontages of 275 and 280 feet and a depth of 50 feet, the structure was the largest industrial building in the United States when it was completed. The first piano factory in the world to be powered by steam, and with production divided into specific tasks in an early instance of division of labor, Chickering's plant set a pattern which would soon be followed by other manufacturers.¹

In 1853 German immigrant Heinrich Steinway (originally Steinweg), established a piano factory in New York, winning a gold medal at the American Institute Fair only two years later. By 1859, Heinrich's son Henry had taken out a patent on an overstrung grand piano. Overstringing, which used more than one string for each note, had been used on square pianos before. Steinway's technique, however, also rearranged and allowed greatly increased tension on the strings, making it possible to produce pianos with more volume, surer tuning and increased sonority. In 1860 Steinway opened its own large, steam-powered factory on 4th Avenue (later Park Avenue) in New York City. The Steinway firm, improving on Chickering's accomplishments, continued to patent improvements in piano production technology through the end of the century.² Steinway revolutionized the piano industry, both in America and in Europe, where the "American system," combining the highest quality with reduced costs, by economizing in the use of expensive skills, substituting machinery for manual work, and by a thorough-going division of labor, was generally adopted by 1883.³

Jonas Chickering died in 1854, before his great new factory was completed. Under his sons the company was unable to compete with Steinway, losing its earlier market

¹ Arthur Loesser, Men, Women and Pianos: A Social History (New York: Simon and Schuster, 1954), pp. 495-6

² Loesser, p. 496

³ "Pianoforte," The New Grove Dictionary of Music and Musicians, Stanley Sadie, ed. (London: Macmillan, 1980), p. 706

domination very quickly. By 1869 Steinway was the leader in dollar sales of pianos in America, followed by Chickering and Knabe, in that order.⁴

The period from 1860 to 1915 was one of enormous expansion in the American piano market. Production grew from about 24,000 in 1870 to approximately 72,000 in 1890 and over 300,000 in 1910. Although the technology of the piano itself changed little after 1860, the process of production was revolutionized by the introduction and rapid acceptance of manufacturers of specialized parts which could be easily assembled even by companies with little experience or interest in piano craftsmanship. The action, the complicated mechanism for transmitting pressure on the keys into sound from the strings, with its over 6000 individual parts, was the first component to be produced by German, French, and, later, American specialists. Other producers supplied cast-iron plates, cases, legs -- even felt for the hammers. These assembled pianos did not equal the leaders in the field for quality, but greatly reduced the cost of what had earlier been a luxury product, with its market limited to serious musicians and affluent amateurs. It is estimated that the cost of a piano fell by about 50 percent between 1850 and 1914.⁵

Between 1890 and 1910 the intense competition produced by new large-scale producers entering a rapidly expanding market triggered an interest in combination in the piano industry, as it did throughout the American economy. The first attempt to create a piano trust, in 1892, broke down in the financial crisis of 1893. Other attempts in 1897 and 1899 were also unsuccessful. In 1903, however, the Aeolian Company, which absorbed the firms of Weber, Steck and others, was founded. In 1908 the American Piano Company was established, consisting of Knabe, Chickering, Haines and a number of other firms. All of these combinations followed the same general lines, attempting to limit competition by dividing production into high, middle and cheaper grade pianos, with each category represented by one of the merging firms. American Piano Company and Aeolian were themselves merged in 1932. The combined firm continues to produce pianos under the name of the Aeolian-American Piano Company.⁶

After the first World War the popularity of the piano gradually waned. Automobiles replaced them as the essential symbol of the attainment of middle class social status, and phonographs, films and radio came to seem more sophisticated than the old parlor square piano with its Victorian associations. These trends were not immediately apparent, however, and sales continued to increase into the 1920s. Output peaked in 1923, but had already fallen slightly by 1929, even before the stock market crash and ensuing Great Depression. By 1932 output had fallen to approximately 10 percent of its high only nine years before. Since the second World War, production nationwide has continued at a respectable level, but one much below its earlier high. Attempts to restyle the piano, by simplifying its lines and eliminating the elaborate cases which were so popular during the

⁴Loesser, p. 528

⁵"Pianoforte," *Grove's*, p. 704-5

⁶Loesser, pp. 571-3, 604-5; Alfred Dolge, *Pianos and Their Makers* (Covina, Cal.: Covina Publishing Co., 1911; repr. Dover, 1972), pp. 205-210

nineteenth century and to develop new forms of upright and so-called "baby grand" pianos were unsuccessful in restoring the earlier popularity of the instrument. There has been no return to the "piano mania" of the early twentieth century.⁷

Piano Production in Baltimore

In 1810, Adam Stewart was making pianos on Charles Street in Baltimore. Between that date and the mid 1830s a number of German immigrants arrived in the city and went into the piano making business, including Joseph Hiskey, who arrived in 1819, Henry Hartge (Hartge's name is also frequently spelled Hartye), who began making pianos on Hanover Street in 1827, and William Knabe, who worked briefly with both of his predecessors before establishing his own business.

By 1850 there were ten piano manufacturers in the city, with three, the largest ones, concentrated in the fourteenth ward to the west of the harbor. Although average employment in these ten firms was 16, the average for the fourteenth ward, where Knabe's plant was located, was 33. Like most piano factories in that year, whether in Europe or America, these firms were using handcrafting methods to turn out, at most, a few hundred instruments a year. Output could not be greatly enlarged until methods of production could be mechanized.⁸

The labor force for all of these producers was probably German. German immigration to Baltimore had soared during the 1830s and 40s. Many of the immigrants were skilled workers, often trained in cabinet-work, as Knabe had been. The large Baltimore German community had a long tradition of support for immigrants, and many German employers in the city made it a policy to hire other Germans. According to the 1850 census, Germans made up about 13 percent of the population in the fourteenth ward and close to 20 percent in nearby residential areas.⁹

Pianos continued to be manufactured in Baltimore throughout the nineteenth century. Many of the producers were Germans. The firm of Charles Steiff achieved a good local reputation and sold many instruments in the south. The local industry was, however, dominated by William Knabe and Company, the only Baltimore firm with a national reputation and second only to Chickering, during the early period, and, later, to Steinway in terms of quality among all American producers.¹⁰

⁷"Pianoforte," Grove's, pp. 704, 709-10

⁸History and Statistics of the State of Maryland, According to the Returns of the Seventh Census of the United States, 1850 (Washington: Gidion and Co., 1852);

"Pianoforte," Grove's, p. 704

⁹History and Statistics of the State of Maryland

¹⁰Daniel Spillane, History of the American Pianoforte (New York: 1890), pp. 133-36

William Knabe and Company

Valentine Wilhelm Ludwig Knabe was born in Kreuzburg, Prussia, Germany, in 1803. His pharmacist father and homemaker mother had planned for him to receive an education in the classics and sciences, but their plans were disrupted by the Napoleonic Wars. Instead, Knabe served an apprenticeship with a cabinet and piano maker in Meiningen. He worked for several piano makers in Germany, receiving a thorough background in the craft.

While in Meiningen he met and became engaged to Christiana Ritz. Her brother was in the process of recruiting colonists for immigration to the United States. The group, including Christiana, set sail for Baltimore in March of 1833.

The original intent of these colonists was to take up farming in the midwest. Due to difficulties of the voyage, they stayed in Baltimore for a time to recuperate. It is not known whether William Knabe's original plans included becoming a farmer in the midwest but he did join up with this group in Baltimore later in the year. Knabe and Ritz were married on August 18, 1833.

William Knabe immigrated to Baltimore along with a tide of other Germans. Approximately 200,000 Germans came to the United States through the port of Baltimore between 1830 and 1860.¹¹ Knabe was one newcomer who opted for staying on in the city, becoming an American citizen September 12, 1840.

Knabe went to work for Henry Hartge, acquiring a good working command of English and local business practices. In 1837 he established his own business, making square pianos in a small shop near his home. In 1839 he entered into partnership with Henry Gaehle, another piano maker of German descent, who had been operating his own profitable piano business on N. Eutaw Street. By 1845 the firm was producing about five pianos a week at a factory at N. Eutaw and Baltimore streets -- undoubtedly the largest of Baltimore's ten piano makers. In 1853 a piano manufactured by Knabe and Gaehle received high praise and a gold medal at the annual exhibition of the Maryland Institute.¹²

On Gaehle's death in 1854, Knabe opted to buy the company and go into business for himself. He published a notice that he had purchased the existing unfinished and finished stock and lumber supplies and the property on N. Eutaw and Baltimore Streets, and had begun construction of a new factory fronting on W. West Street at S. Eutaw Street. Knabe and Gaehle had made their pianos by hand, but the new factory, in the remodelled Holtz paper plant, would be different. Probably directly

¹¹Francis F. Bierne, The Amiable Baltimoreans (New York: E. P. Dutton, 1951),

p. 204

¹²Catalogue of Articles Deposited for Competition and Premium at the Sixth Annual Exhibition of the Maryland Institute (Baltimore: 1853), p. 193

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William Knabe & Co.
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influenced by the famous Chickering factory, which had been completed at about the time work began on the Baltimore facility, Knabe's new building was powered by steam and featured labor-saving equipment and a clear division of labor.¹³

By 1860 Knabe dominated the southern market for pianos, and his product was beginning to achieve a national reputation. At about that time, he opened a second factory, a new building across China Alley to the east of the original plant. Five stories high with the generous windows needed to provide light for the precision craftsmanship still necessary to produce quality pianos, the new building was proudly described as having the most modern labor saving machinery and being powered by a 35 horse power steam engine, "one of the most beautiful and perfect engines in the country."¹⁴ By 1864 Knabe was producing 40 to 50 pianos a week, ten times his output in 1845.¹⁵

Plans for further expansion were delayed by the Civil War, which seriously disrupted Knabe's southern market. In an emergency effort to create business, William Knabe's son Ernest travelled immediately to the far northeast and west attempting to open new markets in areas relatively unscathed economically by the war. This marketing enterprise was so successful that Knabe was able to bring its factories to full production within two months. An addition to the new building on W. West Street was completed in about 1865. The final section of the Piano Manufacturing Building, with its one-hundred-foot tall cupola providing a magnificent view of the city, was completed in 1869.¹⁶

The post-Civil War period was another era of extensive marketing and prosperity for the firm. The company opened an outlet in New York City around May of 1864 through a business agent, Julius Bauer and Company. By 1890 there were Knabe warerooms in both New York and Washington, D. C. Knabe also exhibited pianos at state and county fairs all over the country, consistently receiving many high awards. Notably, the pianos were displayed at the 1876 Centennial Exhibition in Philadelphia, to wide acclaim. In 1879 the Japanese government chose to buy Knabe pianos for use in its schools. Like Steinway and Chickering, its principal competitors for the quality piano market in the nineteenth century, Knabe actively sought endorsements from European piano virtuosos, sponsoring tours by such men as Hans von Bulow, Peter Illyich Tchaikowsky and Camille Saint-Saens.

Production expanded dramatically when a new and even larger building was constructed at some time between 1876 and 1890 on the north side of West Street (the Piano Mechanism Building). At the turn of the century production reportedly

¹³Baltimore Seine Vergangenheit und Gegenwart mit Besondere Rerucksichtigung des Deutschen Elements (Baltimore: Deutsche Literarische Bureau, 1887), pp. 276-

¹⁴"Knabe and Company's Pianoforte Manufactory, Baltimore, Maryland," Frank Leslie's Illustrated Newspaper, Aug. 6, 1864, p. 307

¹⁵"Piano Forte Manufacturing in the South," New York Daily Tribune, Oct. 31, 1865

¹⁶Baltimore Vergangenheit u. Gegenwart, p. 277

totalled about 2,000 pianos annually. The Piano Finishing Building was built and a fifth floor was added to the Mechanism Building in 1906, as Knabe's production responded to the seemingly insatiable demand of that period preceding the first World War.

William Knabe died in 1864, but the business was continued and expanded under the supervision of his sons Ernest (born 1837) took on the tasks of overall management of the company and William (born 1841) took over factory management. Both men had been well trained in piano making. Ernest (his name is frequently given as Ernst) began his apprenticeship at age 14, and became a member of the firm at age 21. Knabe's sons received formal education as well, attending institutions such as the locally well-known private Zion School run by Henry Scheib in their primary years. William also attended the Manchester (Maryland) Academy and St. Timothy's Hall in Catonsville. Ernest attended a local business college. Charles Keidel, William and Ernest Knabe's brother-in-law, was also involved in the management of the firm.

In addition to management responsibilities, Ernest Knabe also designed new string scales for Knabe concert grands and upright pianos. He was known locally for his public-spirited nature and for his patronage of the arts. All of the Knabes were active in civic affairs, especially German organizations. Ernest married Laura Beck in 1867, and had two sons, William and Ernest Jr. Laura died in 1872.

In February 1889, William died at the age of 48 while undergoing treatment for a lung problem in Aiken, South Carolina. He had been living with his brother at 320 West Biddle Street. Ernest took on the entire management burden himself, and died a few years later in April 1894, after being in ill-health for two years. Charles Keidel apparently managed the business until Ernest Knabe's sons were able to take over the management of the firm. William and Ernest Knabe, Jr., bought out Keidel's interests in 1899, for \$500,000, and eventually incorporated the firm, probably shortly after the turn of the century.¹⁷

In 1908 Knabe was one of the founding members of the American Piano Company (Ampico), with their instruments representing the top of that company's line of production. The third generation of Knabes worked for Ampico until 1911, when they left the company to establish their own pianomaking firm. "Knabe Brothers Company" lasted until 1914.

Under Ampico, the piano business flourished for a time. Knabe pianos remained well-known, and were selected for use by the Metropolitan Opera of New York in 1926. Production was moved to East Rochester, New York, however, in 1929.

¹⁷Das Neue Baltimore mit Besondere Beruecksichtigung des Deutschen Americaner in Geschaeftsleben, 1905 (Baltimore: The German Publishing Co., [c. 1906]), pp. 290,292

Knabe pianos are still manufactured there today as a division of Aeolian American Corporation.

Production Process

In 1850 piano making was still a craft. All work was done by hand, by skilled craftsmen usually trained as cabinet makers. Jonas Chickering's invention of the one-piece cast-iron frame, and his new system of division of labor, transformed this craft into an industry. The piano is an extremely complex mechanism, however, and was, in the nineteenth century, housed in an elaborately decorated case. Therefore, the process of production could not be fully mechanized. Producing a piano, in the 1860s as in the 1980s, involved the work of over one hundred distinct skills, specialized in terms of the parts being made, including case, bottom, soundboard, check, beam, damper, hammer, lifter, key, leg, brass bridge, and metal plate. Other workers included stringers, finishers, tuners, polishers, carvers, gilders and action regulators. Many of these workers had learned their trades within the Knabe organization, beginning as apprentices before the child labor laws made that impossible in the early twentieth century.¹⁸

William Knabe and Co. was one of the quality piano producers which refused to purchase any components manufactured by others. They apparently manufactured all of the components for their instruments themselves up until the Baltimore facility was closed in 1929, although descriptions of the factories in most years give no indication of where the iron frames were cast. In 1901 the foundry was apparently located in the former Eagle furniture factory between S. Eutaw Street and the railroad tracks.

The production of pianos began with the raw materials, of which an extensive inventory was maintained at all times. Felt, leather, ivory, strings, tuning-pins, screws, hardware, varnish, glue, and other miscellaneous items were stored in warehouses. Large stocks of lumber, including the beech, birch, cedar and pine necessary for the interior of the piano, and the ebony, mahogany, rosewood and satinwood used in the cases, were stored in stacks covering most of the site, which eventually totalled almost four acres. Most of this lumber was aged in the weather for five years, a procedure necessary to produce an instrument capable of withstanding the extremes of the American climate and the rigors of American steam heating. The same steam which powered the machinery filled the pipes heating the plant and the drying rooms. The boilers generating the steam were located in a separate building, probably in part to reduce the ever-present danger of fire.

The first description of the manufacturing process comes from an 1858 guidebook:

¹⁸"Steinway: Family and Factory" Calendar for 1986 (New York: Fiorello H. La Guardia Community College of the City University of New York, the New York City Department of Cultural Affairs and Con Edison, Queens Division, 1986), n.p.

"In the first story is a powerful steam engine sawing, planing and preparing, by machinery the lumber necessary for use. A large number of workmen are occupied in the second story, in the manufacture of piano cases and tops, which, after they are finished, are transferred to the third floor, where they receive the sounding boards, strings, plates and keys. The fourth floor is used for polishing and varnishing the instruments, and preparing them for the sales rooms. In addition to this manufactory there is also one on Eutaw Street, the lower portion of which is used as a sales-room. This building is five stories high, each story containing a number of rooms, in which are engaged a large body of workmen in the various departments of the manufacture and finish of pianos."¹⁹

The next description of the production process, now being carried on in both the original building and the Room 3 section of the Piano Manufacturing Building, dates from 1864. In this period the first floor of the new building was being used for planes, saws, drills, and lathes. The second, third and fourth floors of this building were used for bottom and case making, after which the cases were moved to the old building, probably over the bridge shown in later maps, where soundboards were installed on the third floor. The first floor was being used for drying lumber. The fourth floor was used for the varnishing rooms, on the highest level, as they would continue to be throughout the century. Finally, the fifth floor of the Manufacturing Building was used for adding the legs, rubbing down and final work prior to finishing. At this time the upper floors of the factory on N. Eutaw Street were still being used for general finishing, including installation of strings and action, final varnishing and polishing. The lower floors of this building housed the business office, the regulating rooms and storage.

Information on the production process in later years is derived from Sanborn insurance maps, which list the activities being carried on in each building. The map for 1890 shows that the original building was being used for the case room (first floor), key department (second), and blocking (third floor). The Piano Manufacturing Building, now completed, was divided into three areas. The first, Room 3, on the north, was used for offices, stock rooms and storage (on the first floor), regulating department (second), fly finishing (third and fourth), and varnishing (fifth). In Room 2, occupying the corner of S. Eutaw and W. West streets, the machine room occupied the first floor, with case making on the second, a "parlor" on the third, the staining and soundboard departments on the fourth, and varnishing on the fifth floor. In the western part of the Piano Manufacturing Building, Room 3, the machine room again occupied the first floor, with top and bottom making on the second, case making on the third and fourth floors, and varnishing on the fifth floor.

By 1890 the Piano Mechanism Building had been completed on the south side of W. West Street. The basement was being used for the veneer department, the first

¹⁹The description of the buildings is somewhat ambiguous, making it difficult to determine whether the first part of the Piano Manufacturing Building had already been completed. John C. Gobright, *The Monumental City, or Baltimore Guide Book* (Baltimore: John C. Woods, 1858), p. 181.

floor was divided between the action room, a machine room and the hammer department, with a case room on the second floor, a soundboard room on the third and varnishing, again, on the top floor. (The existing fifth floor was not added until about 1906.)

The 1901 Sanborn map shows that the original building was being used for sawing, in the basement, and woodwork on the first, second and third floors. In the Piano Manufacturing Building, Room 1 was used for offices and shipping (first floor), the action department (second), fly finishing (third), soundboards (fourth), and rubbing (fifth). The first floor of Room 2, on the corner, was being used for sawing and planing on the first floor, with the action department on the second and rubbing room on the fifth floors. In Room 3, sawing and planing were still taking place on the first floor, with veneering on the second floor, trimming on the third, and varnishing on the fourth and fifth floors. The Piano Mechanism Building was being used for finishing and packing (first floor), polishing and regulating (second), regulating (third), and polishing (fourth floor). At this time the former Eagle furniture building, on the southeast corner of S. Eutaw and W. West streets, had been taken over for the plate and machinery departments (first floor) and cabinetwork department (second).

By 1914 the original building was being used for storage. Room 1 of the Piano Manufacturing Building housed the mill department (first floor), case department (third), soundboard department (fourth), and core department (fifth). Room 2 was being used for the mill department (first), veneer cutting department (second), case department (third), repair department (fourth) and soundboard department (fifth). Room 3 housed the mill department on the first floor, the veneering department on the second, soundboard department on the third, case department on the fourth and soundboard department on the fifth. The Piano Mechanism Building, now including a fifth floor, was, again divided into a number of areas, which were being used for upright, grand and player pianos (player pianos enjoyed a brief but intense vogue between the first World War and the 1920s), and for iron-drying rooms, plate bronzing, varnishing and polishing. This map is the first to include the Piano Finishing Building, completed in 1906. Its first floor contained the art room, while the second floor was used for actions, the third for fly finishing and finishing of uprights, the fourth for flyfinishing and finishing of grands, and the fifth for polishing.

Maryland Baking Company

The Maryland Baking Company was founded in 1911 as the Eastern Baking Company in Chelsea, Massachusetts.²⁰ The four founders, Russian emigres and brothers Joseph, Isaac, Nathan, and Samuel Shapiro pioneered one of the first automated ice cream cone-making concerns in the country. Within a few years, the business was booming due to a growing market for ice cream and the firm's

²⁰Sources differ as the company's original name. One source gave Southwest Baking Company, other gave Eastern Baking Company.

reputation for making a clean and inexpensive product. The company expanded its ice cream cone making operation to Baltimore in 1926, forming the Maryland Baking Company under the direction of Joseph Shapiro. The firm also maintained its holdings in New England.

A 1937 newspaper article described the Maryland Baking Company facility, located in the old Knabe factory on S. Eutaw Street, as "the largest independent ice-cream cone factory in the country," and went on to describe the cone-making process in the following manner:

"Nearly two million ice-cream cones are turned out every day in the big plant which specializes in this form of edible container.

"The cones are molded and baked in a machine which resembles a small-sized Ferris wheel. The mixture of which they are made, very similar to that used for waffles (for it consists of flour, sugar, shortening, baking powder, vanilla flavoring, and a little salt), is pumped with one stroke of a piston into whichever set of two molds is at the bottom of the wheel. A plunger then forces the batter against the sides of the mold and the wheel starts around on its journey through a series of gas jet flames. There are 24 rows of these aluminum molds to each wheel, and each row contains five cones.

"It takes about one-and-a-half minutes for a row of cones to make the circuit and come out fully baked. At the last stop of each row the plunger is pulled out of the mold and the cones slip into a device which clips off and drops to a waste trough the overflow of baked batter around the top. The cones then drop to a moving spit, by means of which they are conveyed to a table where they are packed, 100 to a box, 10 boxes to a shipping case. In a little longer than it takes to tell they can be started to market. At no time, save in the final packing, are the cones touched by human hands."²¹

The company did not confine itself to ice cream cones, however, soon expanding into other areas. In 1932, a subsidiary, the Maryland Paper Products Company, introduced a product line of disposable straws for soda fountain use. Two years later, the product line was further diversified to include book matches manufactured by the Maryland Match Company. Although no signs remain today, a 1958 newspaper article describes advances in the match manufacturing process pioneered by Maryland Match Company. To fight problems with humidity, a company engineer developed a new method of air conditioning and dehumidification. The process utilized a "kathobar" which blew a salt solution into a drying tunnel and removed moisture from match heads. The method resulted in the maintenance of a 70 degree Fahrenheit temperature and a 40 degree relative humidity level in the entire match head manufacturing area.

In the late 1940s, the company further diversified its products to reflect national trends toward fast food, manufacturing paper cups for vending machines, and adding the name Maryland Cup Corporation to its list of subsidiaries. With the 1950s came a steadily-increasing market for disposable fast food containers, and an enlarged product line. By the early 1960s paper products accounted for 75 percent of the firms output.

In 1962, the company opened new facilities for research and development, in Owings Mills, Maryland. They did not close the S. Eutaw street plant, however, but continued to use it for match, paper product, and cone production. The former Knabe plant was also the site for the machinery division which produced much of the equipment used by all of the manufacturing divisions.

In the 1980s Maryland Cup Corporation, as the Maryland Baking Company and its successors were now known, was a highly profitable concern, famous for its innovative solutions to the needs of the twentieth century, as the piano manufacturers had been in the nineteenth. In 1983 the company, still a family firm, with 55 percent of the stock controlled by the Shapiro family, and ten members of the family on management positions, was bought by Fort Howard Corporation of Green Bay, Wisconsin. In 1984, plans were made to consolidate all four of Fort Howard's Baltimore-area facilities into an expanded plant at Owings Mills. At that point, the company had about 3,400 employees in the Baltimore area, of which about 1,000 were working in Baltimore proper at facilities on High Street and S. Eutaw. By May of 1985, consolidation was still going on. The S. Eutaw Street facility was still producing ice cream cones, drinking straws, plastic cups, and plastic plates. Consolidation at Owings Mill was completed shortly and the Eutaw Street facility was closed.

Holtite Manufacturing Company

The Holtite Manufacturing Company began operation in the buildings located at the corner of W. Ostend and Warner Streets in 1918. The company was the producer of Commander, Jax, Holtite and Cat's Paw rubber heels, rubber soles and various other rubber goods. It was Baltimore's largest industry of its kind and was considered one of the leading producers of rubber heels in the country. In the early 1930s Holtite developed a new, patented heel which was a combination of a metal plate set into the rubber heel and known as the "2 in 1 Stratewalk." The company's sales distribution extended to all parts of the United States and Canada.

Little information on activities specific to individual buildings is available. However, a 1937 newspaper article described the overall process of heel production. Holtite procured crude rubber, called "smoke sheet," from various rubber-producing countries. At that time, most of its rubber came from plantations in Ceylon and Malaysia. The smoke sheets were first cut apart and then fed into a Banbury grinding machine. Coloring was added, and the rubber was rolled into sheets again

and cut into narrow strips. The strips of rubber were then passed through stamping machines which pressed out heel blanks.

The heel blanks proceeded to another machine where they were further heated, pressed, and incised with nail holes, the trademark, and a tread pattern. Following this molding, hollow brass pins surrounded with washers were inserted into each hole and another layer of rubber added through vulcanization. At this point the heel was essentially complete, except for the trimming of excess rubber, which was accomplished by hand with curved knives moistened with milk.

Several sources document the rapid growth of the company. By 1939, Holtite had grown to include several buildings along Warner Street, including mill buildings, substations--which supplied electricity to the heavily mechanized factory--and a large four-story warehouse building. Machines necessary for the production of rubber, and found within the buildings, consisted of large mixers with variable motors, mills, machines for rolling rubber and punching presses. By 1945 the buildings extended the length of Warner Street from W. Ostend Street to W. West Street and included an increased number of office spaces. Research did not indicate exactly when Holtite vacated this site. They were there at least until 1950. Prior to acquisition by the Stadium authority, the buildings were vacant and owned by 1st Baltimore Properties, Inc., a Washington, D. C. based investment group.

IV. Further Research Potential

Researchers wishing to enlarge on the information contained in this documentation have a few avenues of possibility. For instance, one source not yet consulted is building permits. Baltimore building permits only extend back to about 1950, however. They are on microfilm in the city archives and in the building permit office. Other sources are land records and tax assessment records. The former would be found in the courthouse. The latter are kept in the city archives, and date back to about 1798.

Fort Howard/Maryland Cup Corporation may have some records relating to the history of the latter's tenancy in the structures. Attempts to speak with personnel at Fort Howard regarding information for this project were unsuccessful. Company employees, or former employees, who worked in these buildings might also provide useful information.

Although no business records are known to exist, descendants of the Knabes might have retained family records which could yield additional biographical information or history of the family piano business.

German newspapers from Baltimore are available on microfilm at the Library of Congress and in the Maryland Hall of Records in Annapolis. These could shed

additional light on German-American social and business customs, and on the Knabes specifically.

The Peale Museum in Baltimore has a few nineteenth century prints of the Knabe buildings, and two photographs of them from 1932. Since these materials are not in the public domain, they could not be copied to accompany this documentation. They are available to researchers, however,

The Prints and Photographs Division of Maryland Historical Society may have relevant materials. Attempts to contact personnel in that division were unsuccessful since they were involved in setting up an exhibit and unavailable to researchers.

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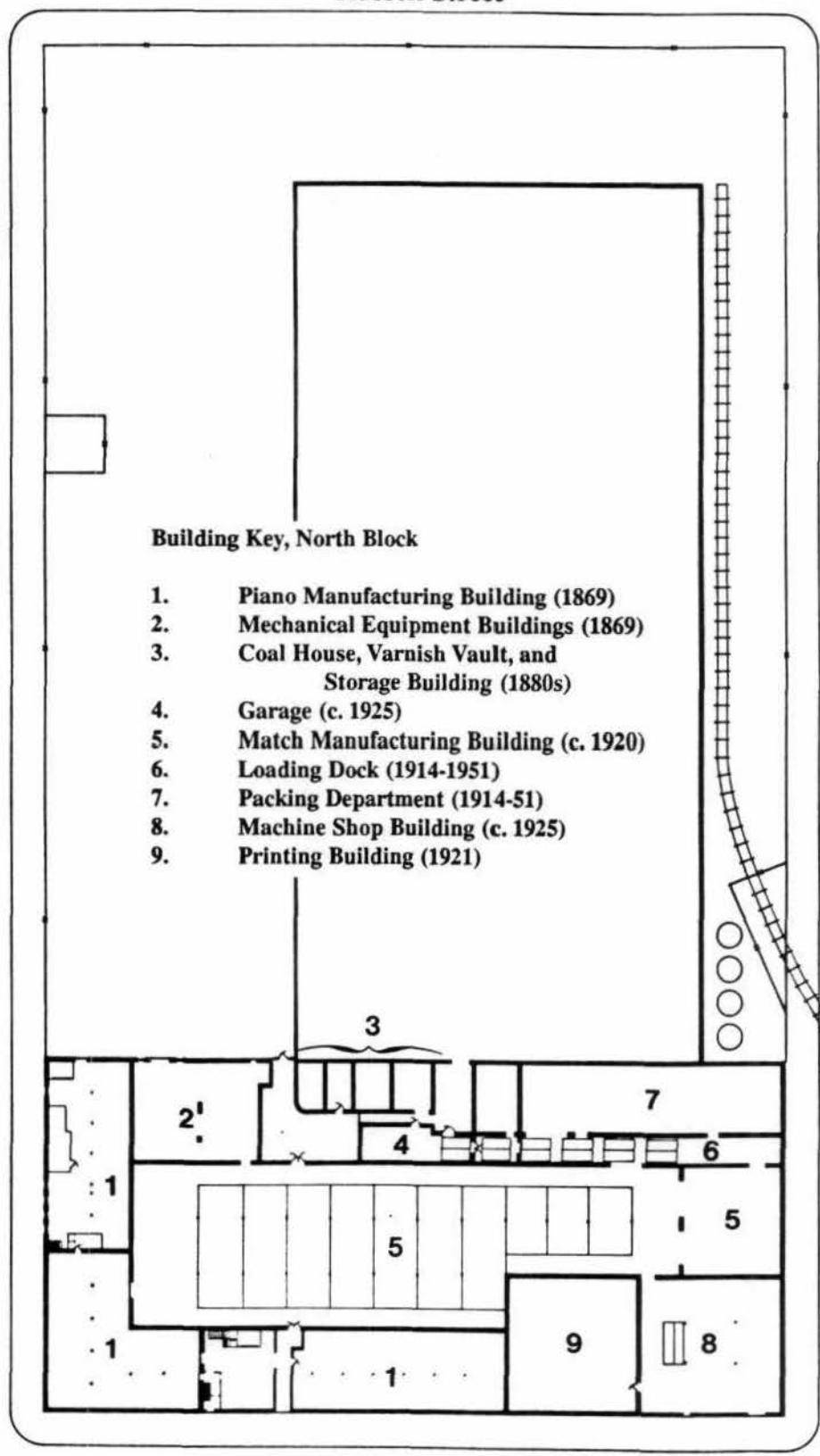
Russell Street

W. West Street

W. Cross Street

Building Key, North Block

- 1. Piano Manufacturing Building (1869)
- 2. Mechanical Equipment Buildings (1869)
- 3. Coal House, Varnish Vault, and Storage Building (1880s)
- 4. Garage (c. 1925)
- 5. Match Manufacturing Building (c. 1920)
- 6. Loading Dock (1914-1951)
- 7. Packing Department (1914-51)
- 8. Machine Shop Building (c. 1925)
- 9. Printing Building (1921)

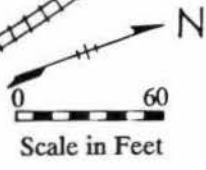


S. Eutaw Street

1989 SITE PLAN - NORTH BLOCK

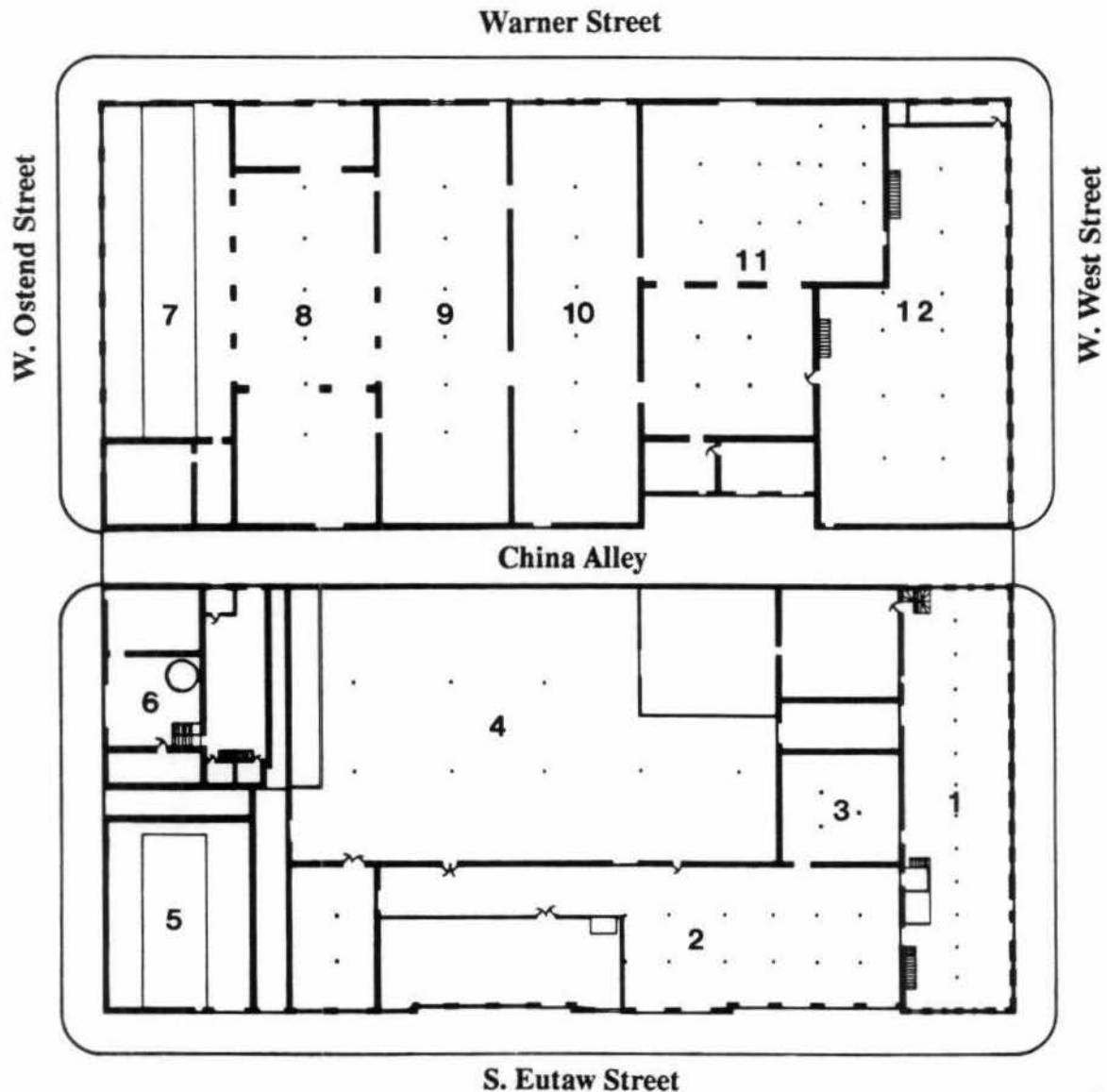
William Knabe & Co.

Baltimore, Maryland



Building Key, South Block

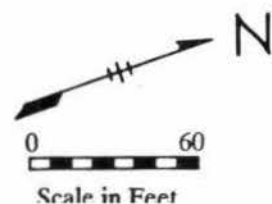
1. Piano Mechanism Building (c. 1890)
2. Piano Finishing Building (c. 1906)
3. Spinning, Boring, and Turning Building (c. 1895)
4. Maryland Paper Products Corporation Addition (1953)
5. Holtite Manufacturing Company Press Room (1949)
6. Holtite Mechanical Equipment Building (1944)
7. Holtite Factory Building No. 1 (c. 1920)
8. Holtite Factory Building No. 2 (c. 1920)
9. Holtite Factory Building No. 3 (c. 1925)
10. Holtite Factory Building No. 4 (c. 1945)
11. Holtite Factory Building No. 5 (c. 1939)
12. Holtite Factory Building No. 6 (c. 1945)

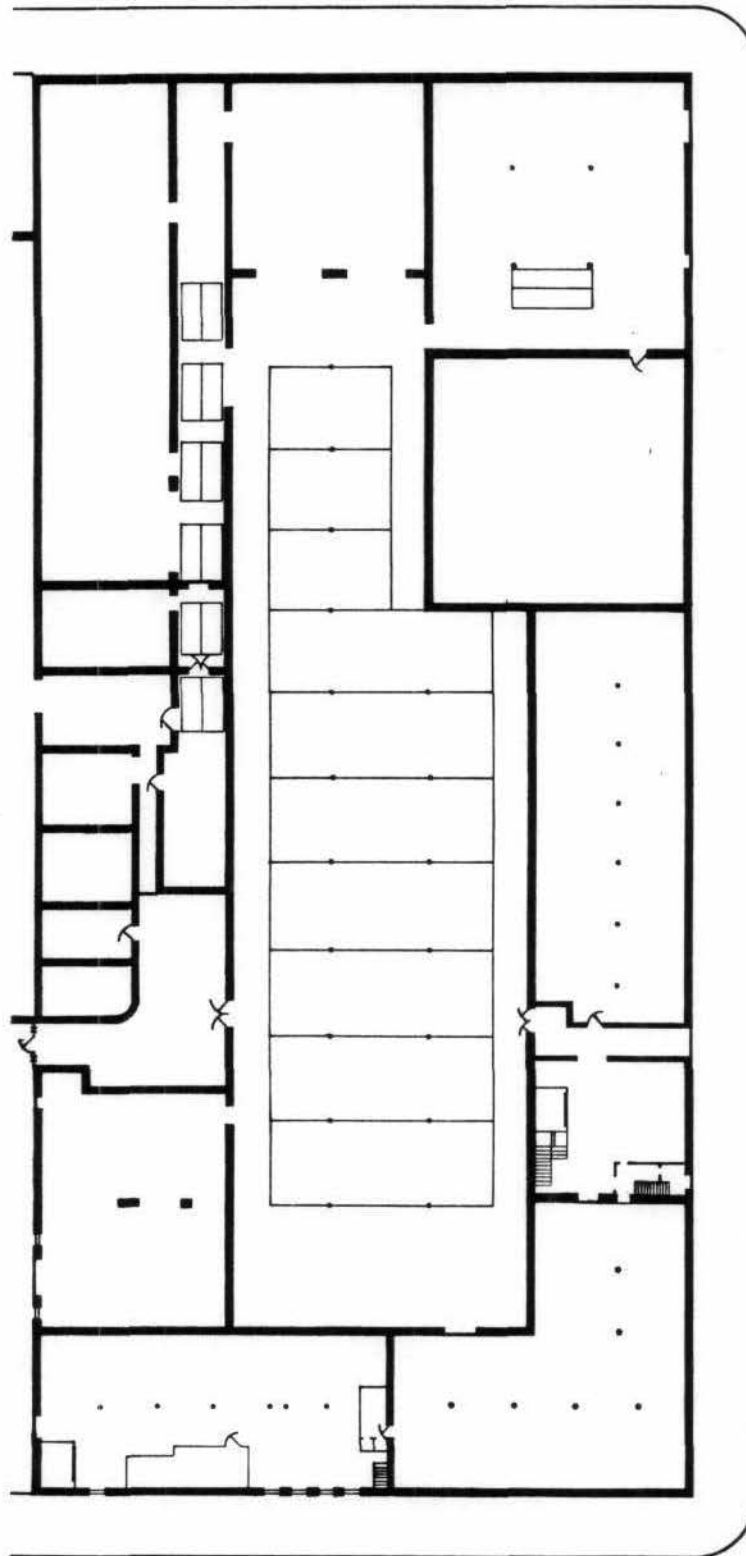


1989 SITE PLAN - SOUTH BLOCK

William Knabe & Co.

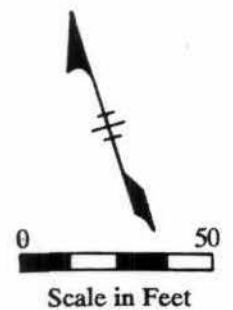
Baltimore, Maryland

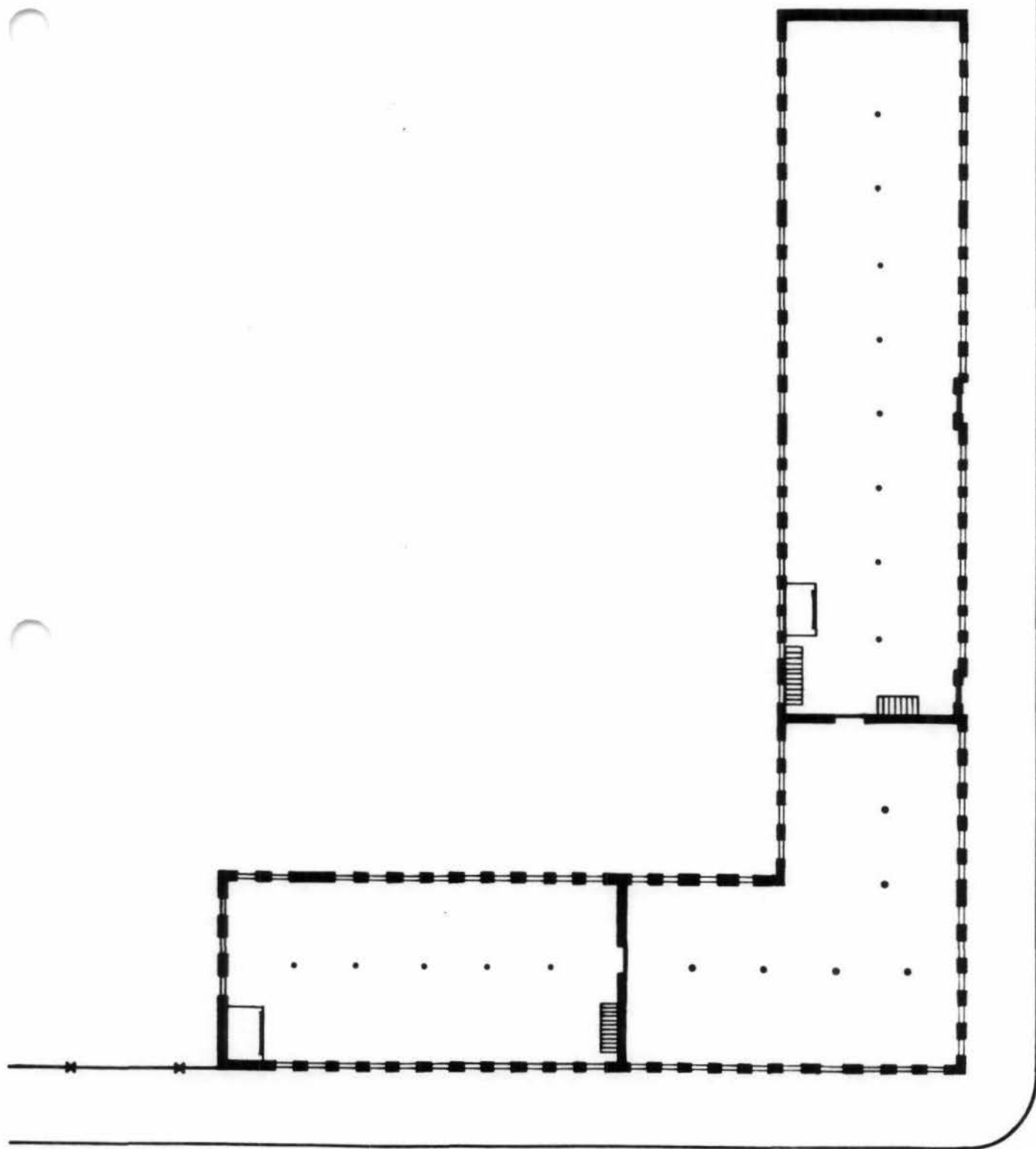




William Knabe & Co.
Baltimore, Maryland

North Block
First Floor



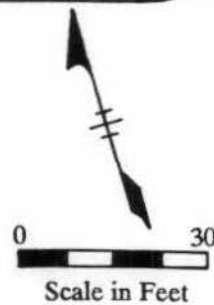


S. Eutaw Street

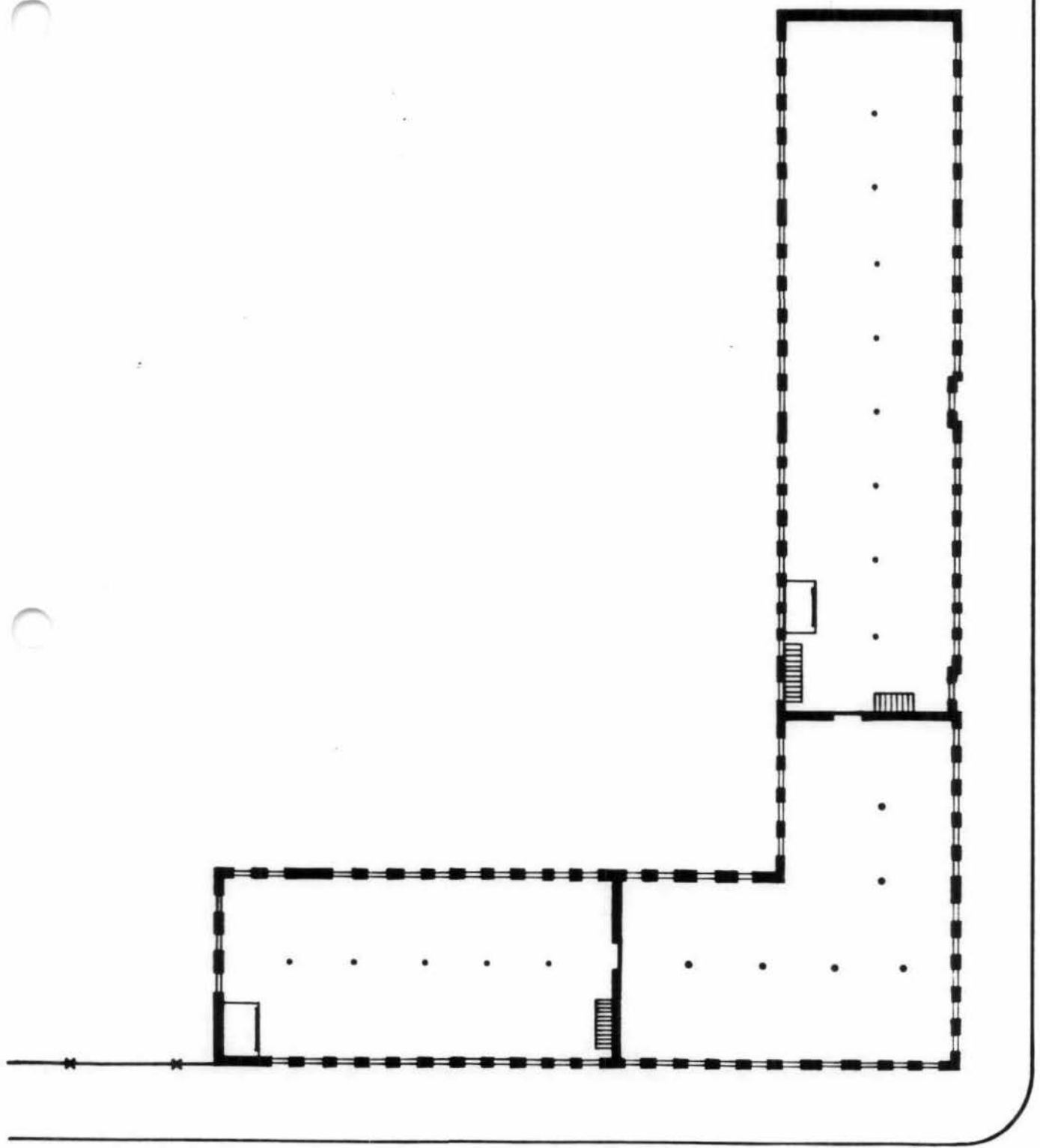
W. West Street

William Knabe & Co.
Baltimore, Maryland

North Block
Second Floor



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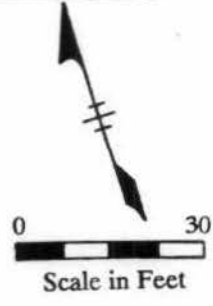


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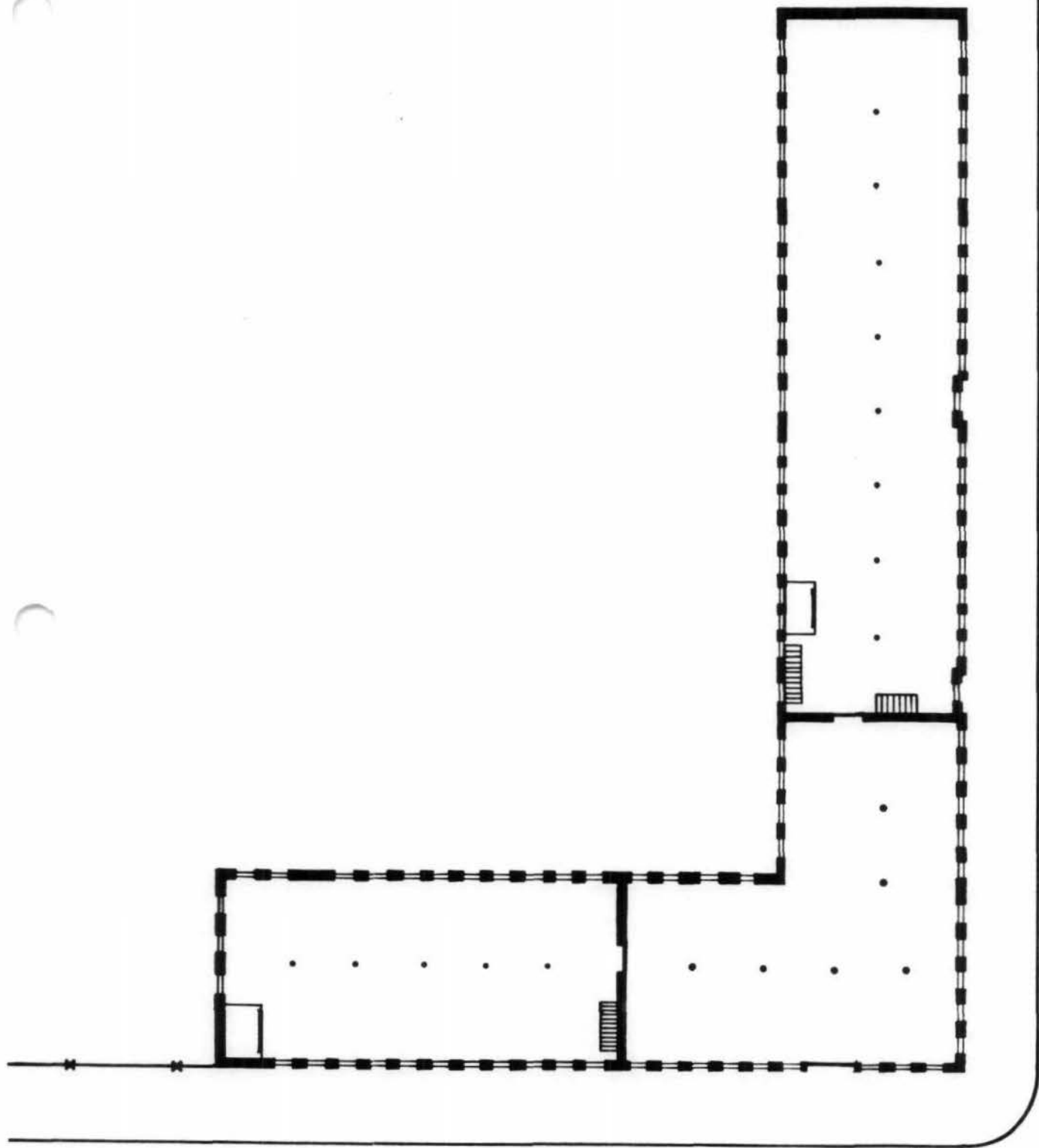
W. West Street

William Knabe & Co.
Baltimore, Maryland

North Block
Third Floor



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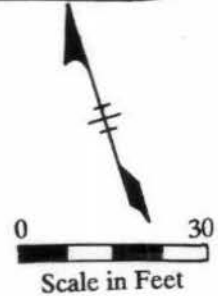


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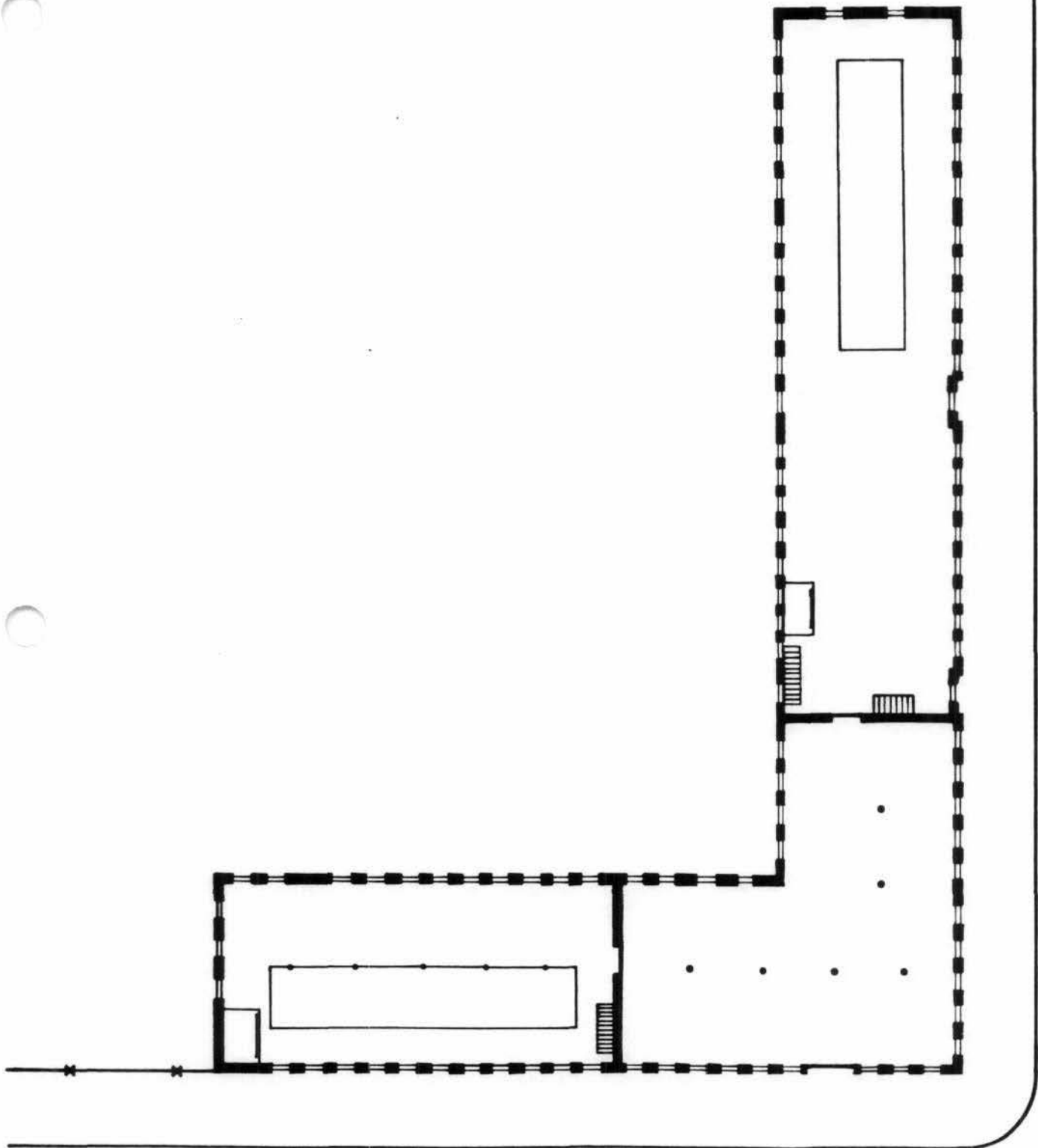
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William Knabe & Co.
Baltimore, Maryland

North Block
Fourth Floor



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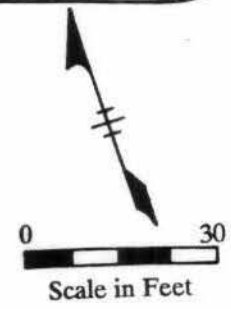


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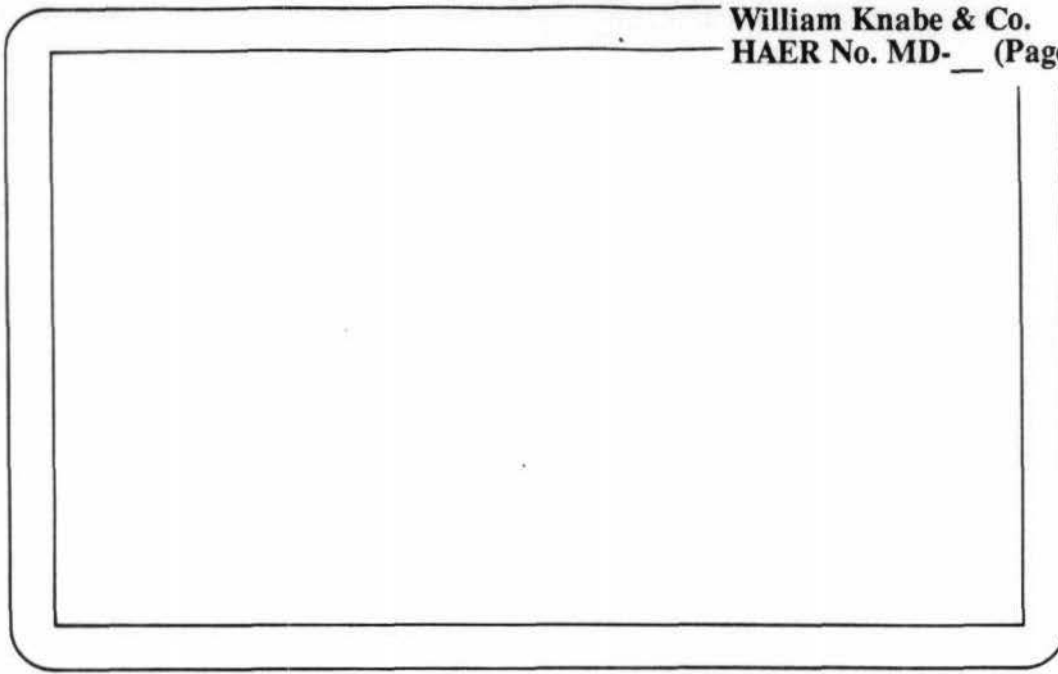
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William Knabe & Co.
Baltimore, Maryland

North Block
Fifth Floor



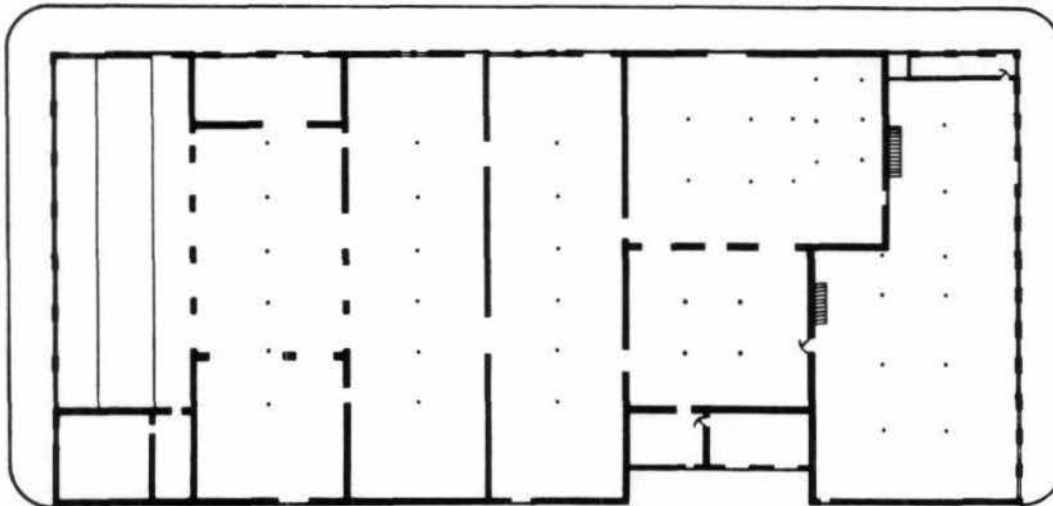
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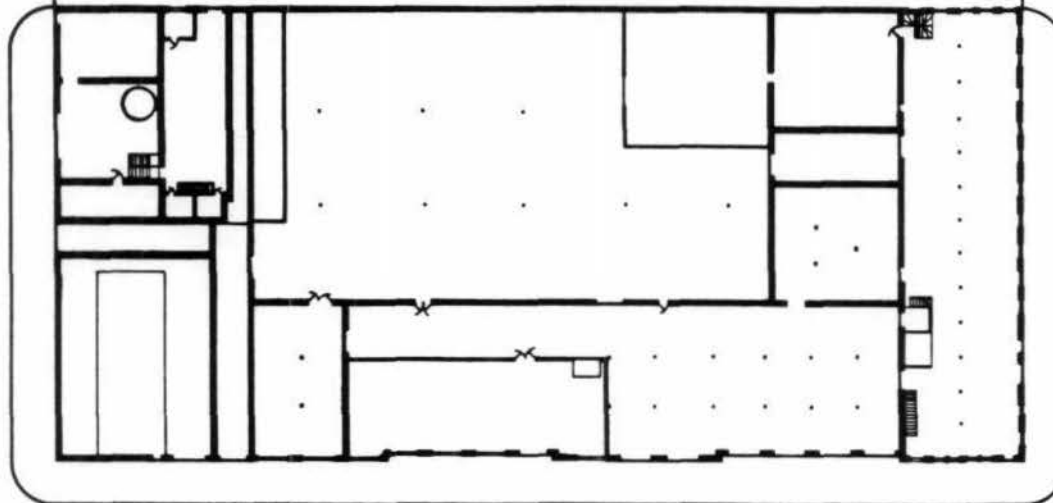
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W. Ostend Street

W. West Street



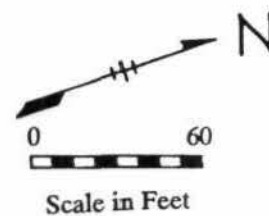
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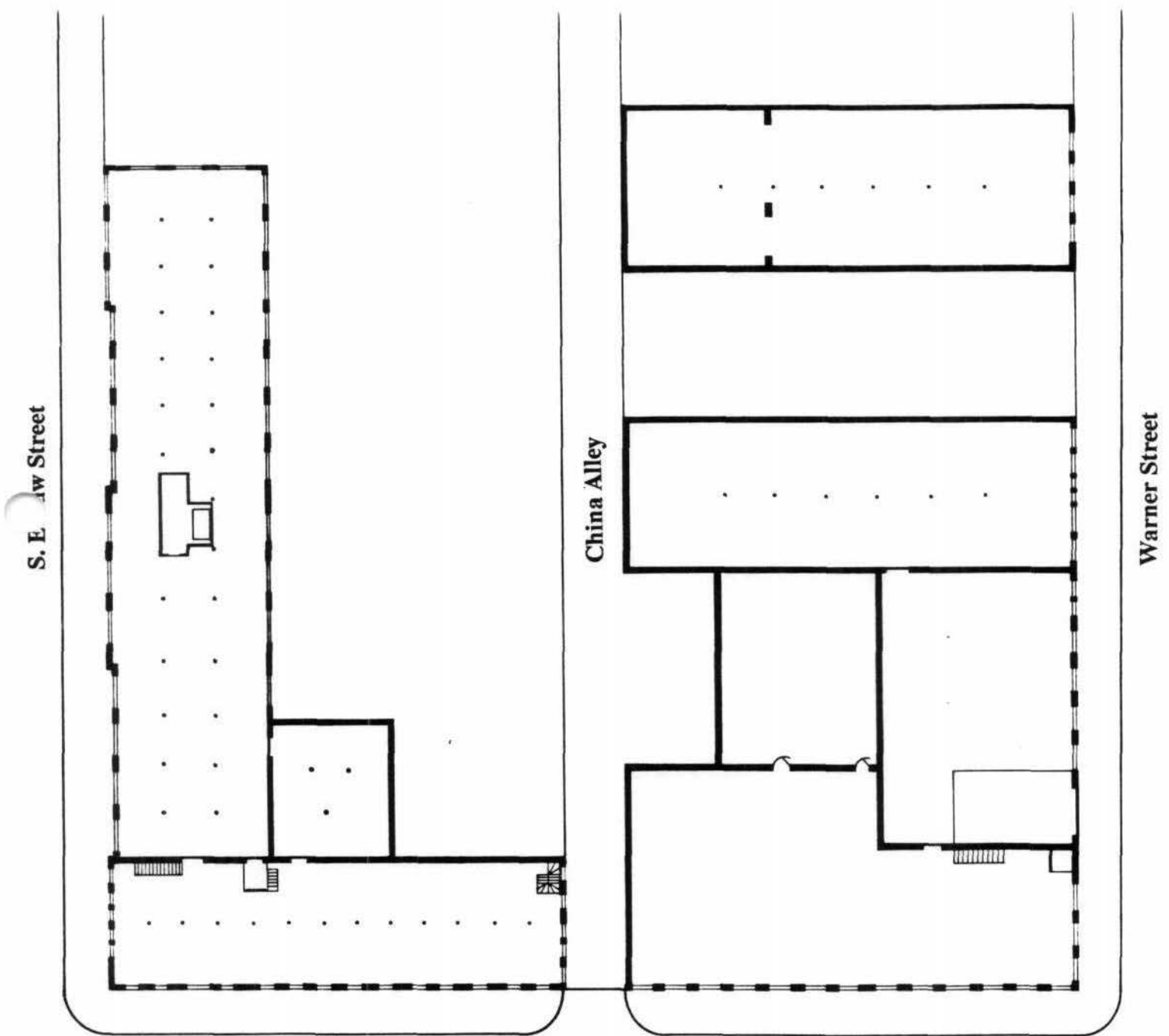


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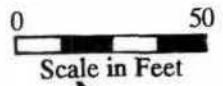
William Knabe & Co.
Baltimore, Maryland

South Block
First Floor





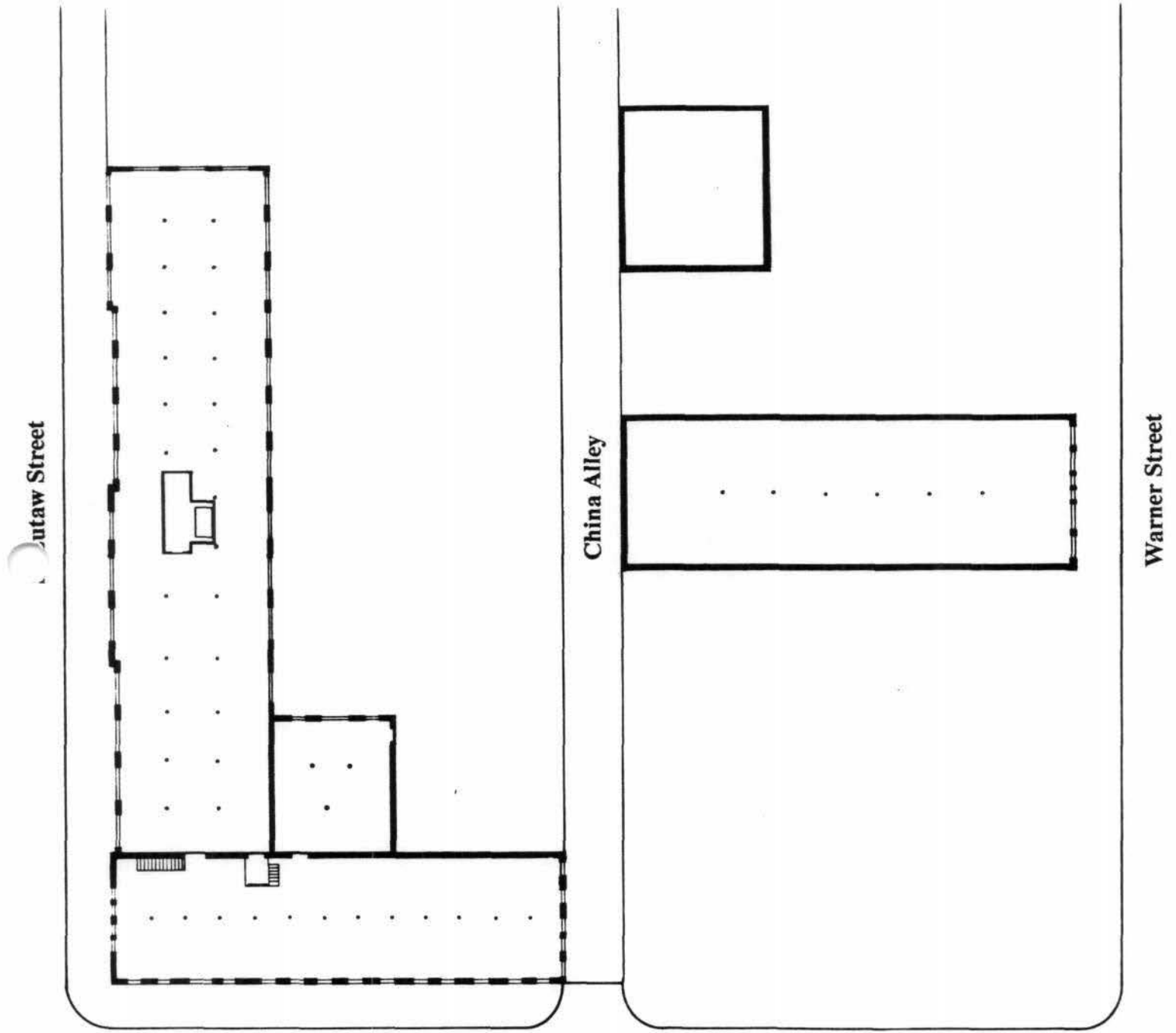
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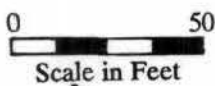
William Knabe & Co.
Baltimore, Maryland

South Block
Second Floor

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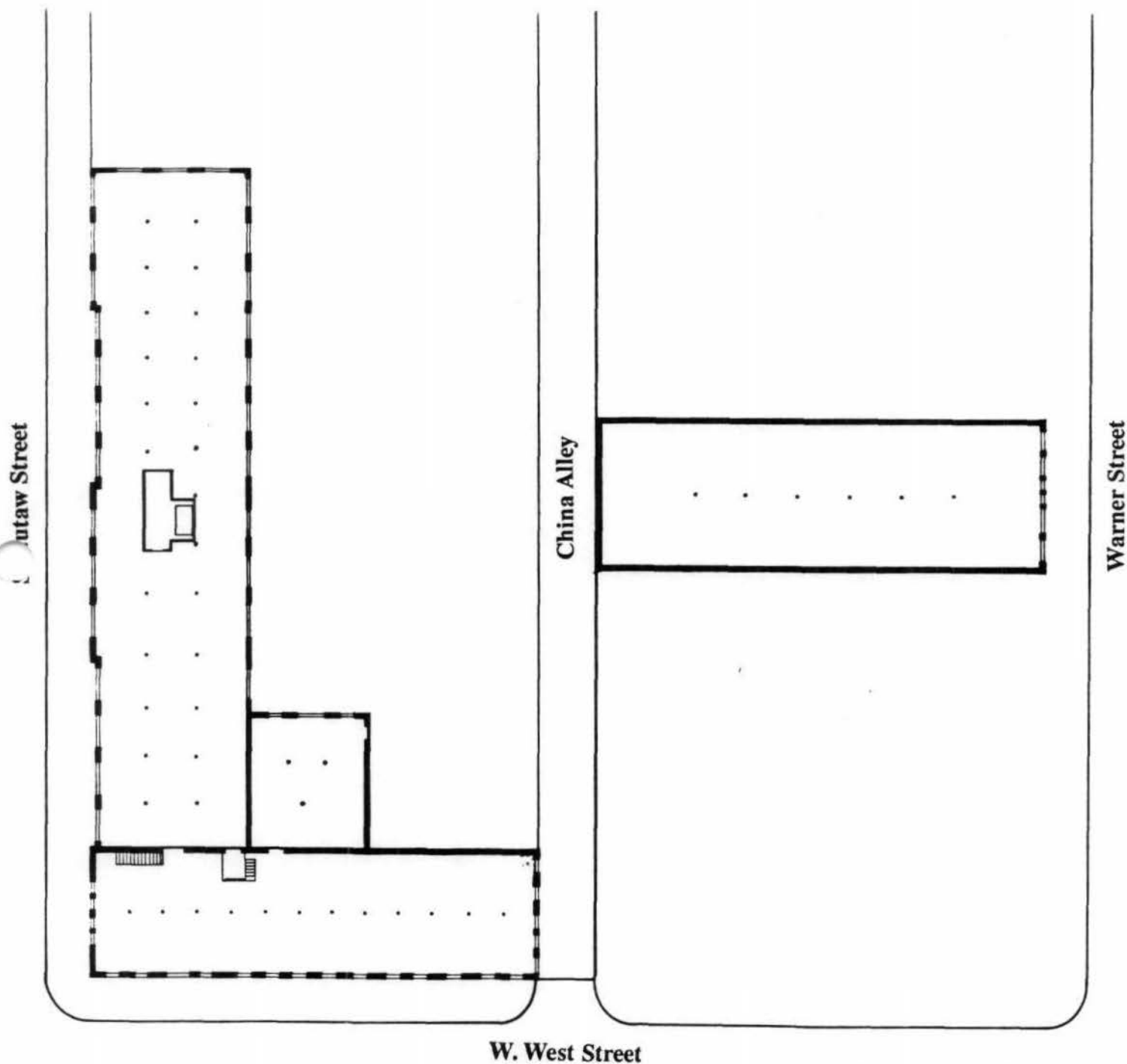
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William Knabe & Co.
Baltimore, Maryland

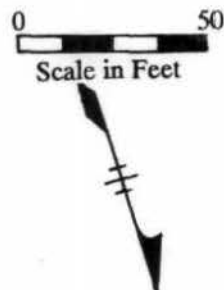
● South Block
Third Floor





William Knabe & Co.
Baltimore, Maryland

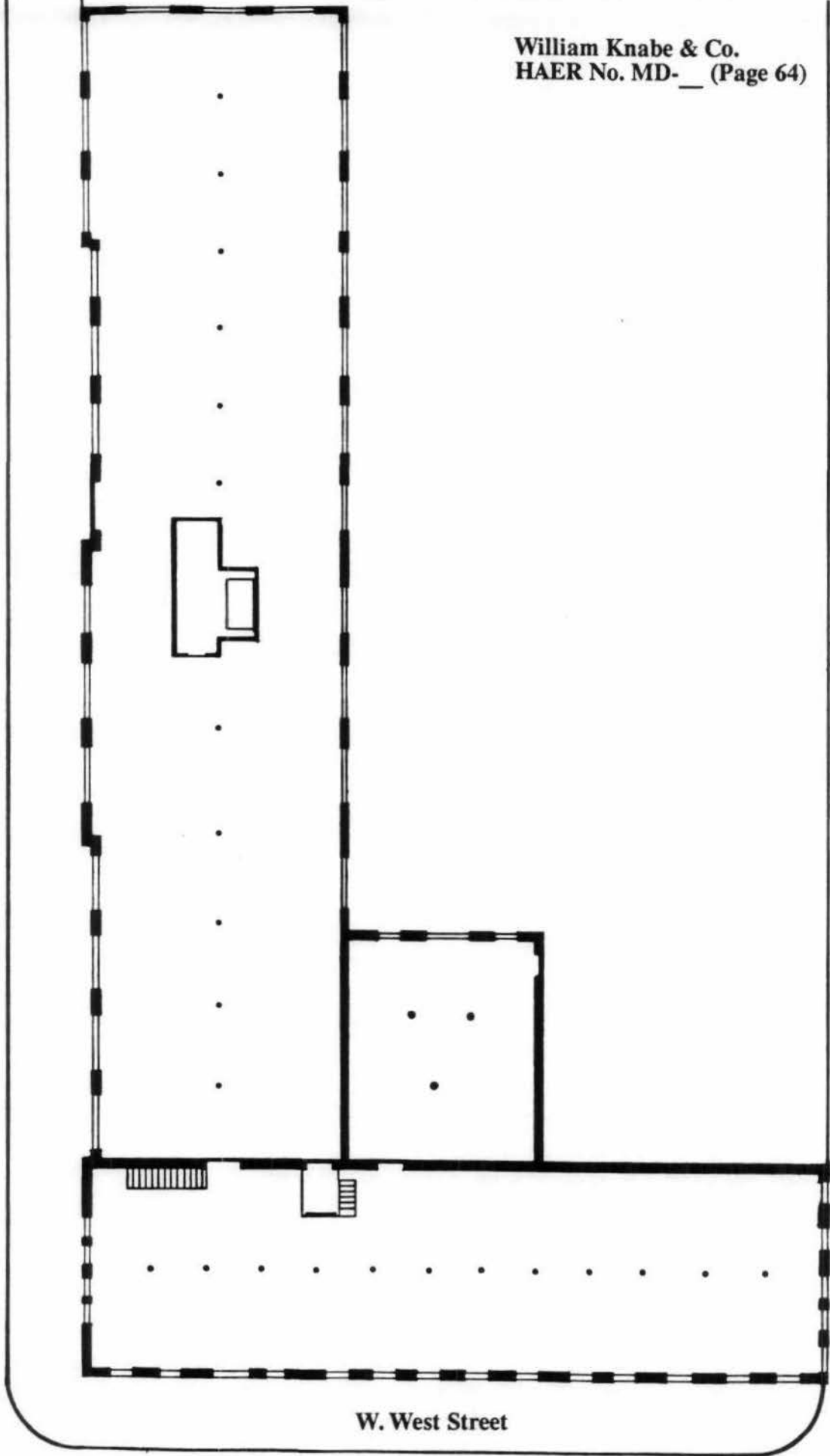
South Block
Fourth Floor



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S. Eutaw Street

China Alley



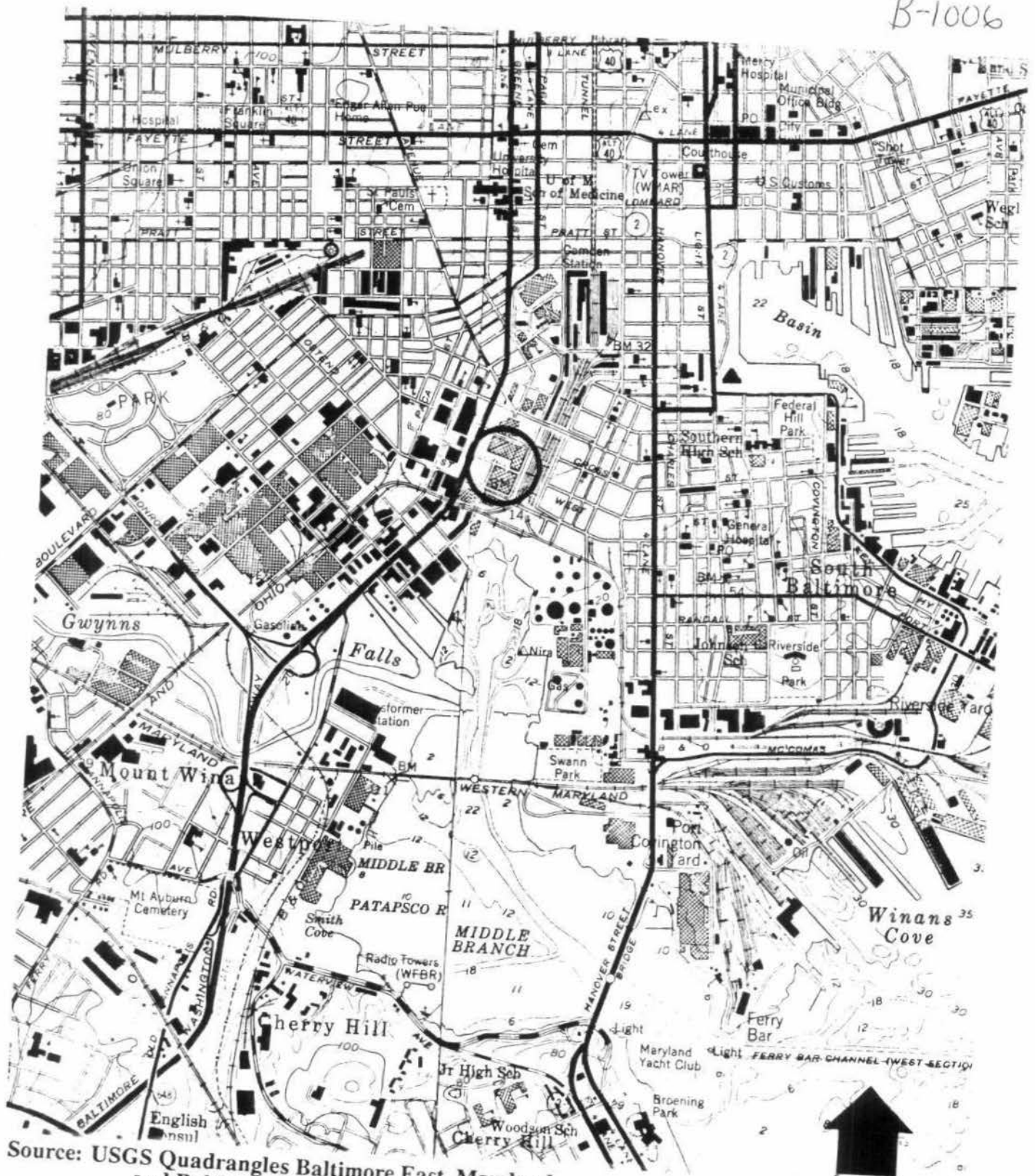
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William Knabe & Co.
Baltimore, Maryland

South Block
Fifth Floor



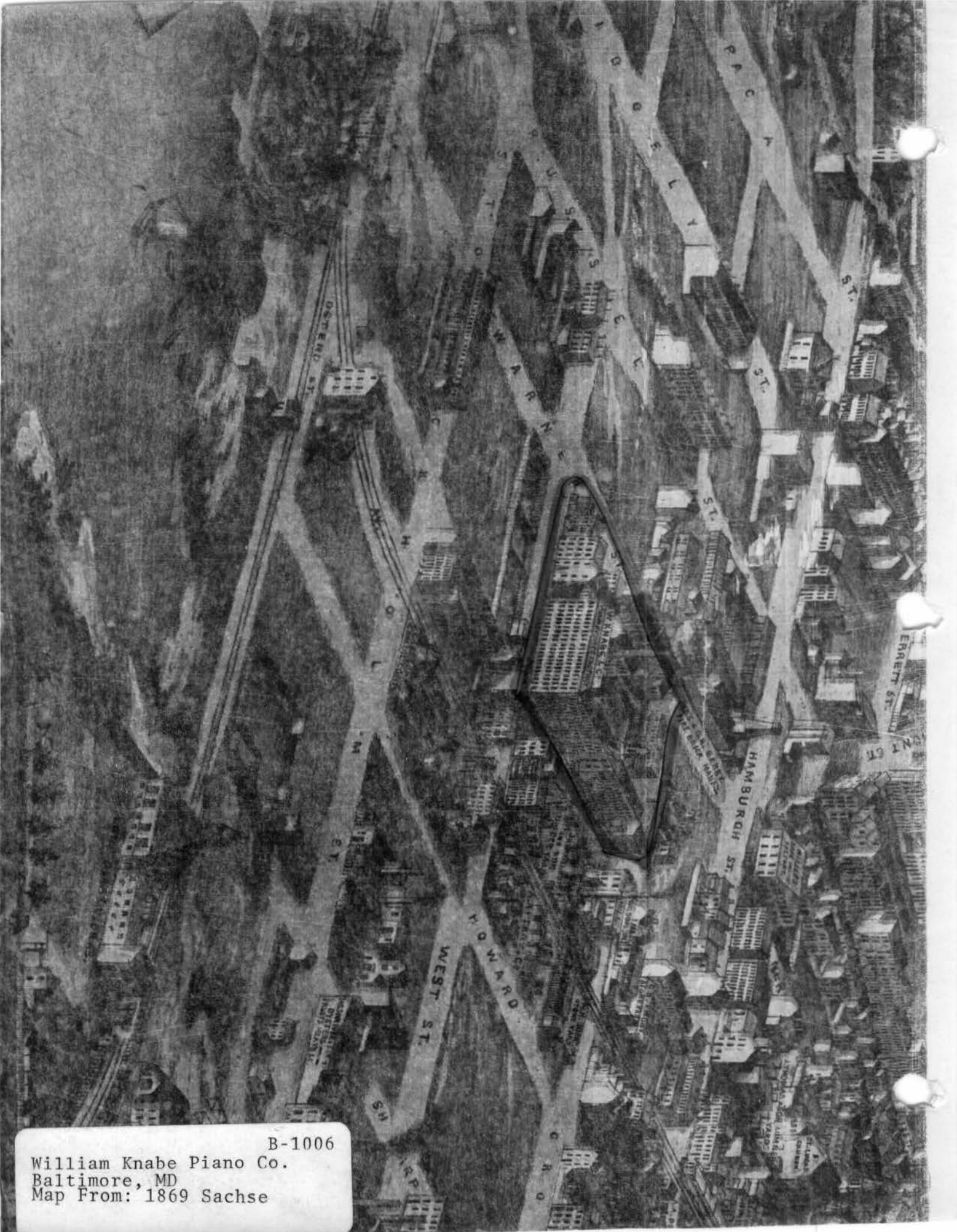
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Source: USGS Quadrangles Baltimore East, Maryland
and Baltimore West, Maryland

Scale: 1" = 24,000'

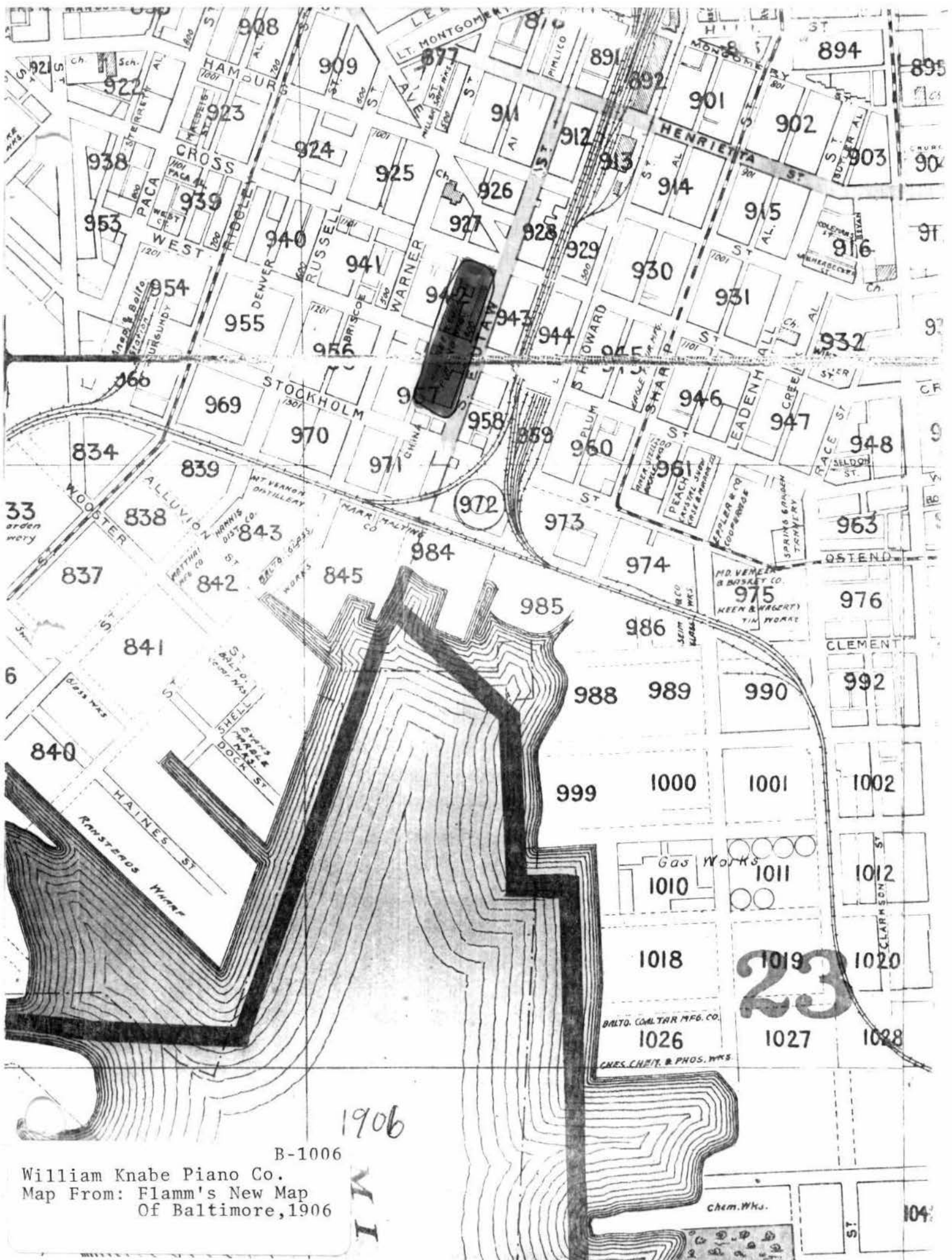
Location Map
William Knabe & Co.
Baltimore, Maryland



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William Knabe Piano Co.
Baltimore, MD
Map From: 1869 Sachse

Saehse 1869



B-1006
William Knabe Piano Co.
Map From: Flamm's New Map
Of Baltimore, 1906

Flamm's New Map of Baltimore, 1906



William Knabe Piano Co. B-1006
U.S.G.S. 7.5# Baltimore West
183599004348540 Quad



B-1006

William Knabe Piano Co.

Baltimore, MD

Photo: Dennis Zembala

Neg. Loc.: MD Historic Trust

November 1980/North bld, Eutaw St.



B-1006

William Knabe Piano Co.

Baltimore, MD

Photo: Dennis Zembala

Neg. Loc.: MD Historic Trust

November 1980 *Looking N/W*



B-1006

William Knabe Piano Co.

Baltimore, MD

Photo: Dennis Zemba

Neg, Loc.: MD Historic Trust

November 1980/ *South building
Entaw St. facade*

Knabe



B-1006

William Knabe Piano Co.

Baltimore, MD

Photo: Dennis Zembala

Neg. Loc.: MD Historic Trust

November 1980 / Detail, North bld.

LAND
ZEMBALA
BALTIMORE INDUSTRIAL MUSEUM
NOVEMBER 1980



11/80

B-1006

William Knabe Piano Co.

Baltimore, MD

Photo: Dennis Zembala

Neg. Loc.: MD Historic Trust



B-1006

William Knabe Piano Co.

Baltimore, MD

Photo: Dennis Zembala

Neg. Loc.: MD Historic Trust

November 1980 / Detail, North bld.

Knabe



B-1006

William Knabe Piano Co.

Baltimore, MD

Photo: Dennis Zembala

Neg. Loc.: MD Historic Trust

November 1980/Detail, North Bld.

YLAND

BALA

NEG. LOC: BALTIMORE

INDUSTRIAL MUSEUM

NOVEMBER 1980

B-1006

William Knabe & Company

SEE BALTIMORE CITY OVERSIZED NEGATIVE FILE FOR
ADDITIONAL HAER B&W PHOTOS/NEGATIVES.

STRUCTURE DEMOLISHED IN 1990.